

Manufacturers Record

Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

Baltimore, Md.
JUNE 7, 1923

The Twelve Hour Day and the Steel Interests.

During the last ten years the steel manufacturers of the country have by voluntary action from time to time reduced the number of men working twelve hours from about 75 per cent of the total number of employes at that time, to 20 per cent or 25 per cent at the present time; and this decrease was made often in spite of some opposition from the men.

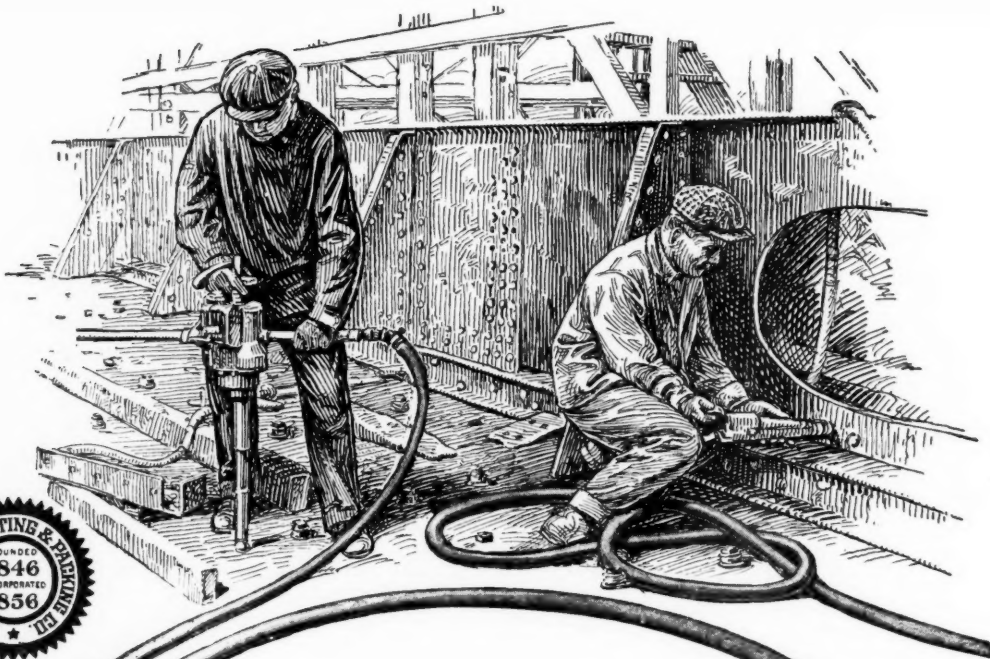
That statement appears in a letter from Mr. Willis L. King of the Jones & Laughlin Steel Corporation, one of the great steel concerns of America. It is an answer to the bitterness of some of the attacks which have been made upon the American Iron and Steel Institute for not eliminating the twelve hour day entirely. The criticisms which have been made by some papers have been so unjust and extreme that the Manufacturers Record requested the members of the committee on the twelve hour day and some of the leading steel men to give us their views on the subject. The replies so far received are published in this issue.

One outstanding fact in connection with this whole discussion is that the United States Steel Corporation between January 1, 1912, and January 1, 1923, expended for welfare work among its employes \$112,039,659, a stupendous sum, which, however, is merely typical of what most of the great steel interests of the country are doing in behalf of their employes. Probably no other big industry was ever so vilified and denounced by agitators in the press and sometimes in the pulpit as the steel men of this country, unless perchance the Southern cotton mill interests may have been even more vilified. In both cases these criticisms were to a very large extent unjustifiable.

These two interests have led the world in the efforts which they have made for the benefit of their employes, for their better housing, better remuneration to them, and for the establishment of schools and Christian associations and churches. In the early days, when these industries were comparatively new and undeveloped, labor conditions were not good; but as their prosperity increased they carried on a broad campaign for the betterment of their working people. In this respect they have set the world an example. But, unfortunately, neither the cotton mill interests nor the iron and steel interests have ever fully realized the importance of the psychological effect of full information on these subjects given at the proper time in the proper way, for the failure to do this fully in the labor report of the Iron and Steel Institute only serves to emphasize how criticisms are almost invited by the failure to so word the report that it would have brought forth commendation for what has already been accomplished in reducing hours of labor.

Henry Ford is credited by millions of people in this country with great devotion to the working people; and yet we doubt whether he has done as much for the welfare of his employes as have the iron and steel and cotton mill interests. But he knew the value of the right kind of publicity, and has always known how to secure it. His skill in this respect matches that of Mr. Carnegie—the two men who seem to have known more about how to secure favorable publicity without end and without cost than any other two men of modern days.

For the good of the country it is an infinite pity that other great employers of labor have not had the same kind of skill, for if they had possessed it, and used it, about nine-tenths of the criticisms and denunciations heaped so vigorously from political platforms, from many editorial rooms, and sometimes from many sensational pulpits, would have had no ground for existence, and the country would have been in a safer and sounder condition. Socialistic, anarchistic and bolshevistic denunciation of business has been largely due to the unwise silence on the part of great business organizations and through their failure to appreciate the psychological effect of reaching the public in the right way.



Getting More Work From Your Air Tools

Only when your air tools are backed by a steady flow of air at full pressure is it possible to obtain maximum production.

Because of certain definite qualities built into Indestructible Pneumatic Hose, its use on your tools will assure uninterrupted driving power.

The great strength of the hose is but one of several features. It is guarded against expansion and kinking by a specially woven fabric jacket over which the rubber cover is applied. This also makes for flexibility which is appreciated when working in close quarters. Short bends will not kink it—you cannot blow it out with many times the average working pressure.

Your air tools will remain continuously on the job—with production correspondingly increased—because the air keeps coming.

NEW YORK BELTING & PACKING CO.

New York
Pittsburgh

Philadelphia
St. Louis

Chicago
Boston

Salt Lake City
San Francisco

INDESTRUCTIBLE PNEUMATIC-TOOL HOSE

Manufacturers Record

Exponent of America

JUNE 7, 1923

Volume LXXXIII

Table of Contents

Number 23

The Twelve Hour Day and the Iron and Steel Interests.....Cover Page

EDITORIALS

The Cabinet in Favor of Building Policy for Government Work	79
Total Export and Import Values.....	79
A Banker's View on Necessity of Continued Building Expansion	79
Available Primary Power at Muscle Shoals.....	80
Will the Next Presidential Campaign Be Fought on the "Wet" and the "Dry" Issue?.....	81
A National Awakening to Righteousness.....	81
Muscle Shoals and Henry Ford.....	82
How to Stop Negro Migration.....	83
An English Born Cotton Manufacturer Living in the South Writes of Cotton Prices.....	83
Convict Leasing Must Go.....	84
Helping the Individual to Own His Own Home—Example of Massachusetts Furnishes an Inspiration	84
Eastern and Western Misinformation About the South	85
Immigration of Alien Races as Destructive to Our Country as Would Be the Welcoming of Immoral Characters Into a Private Home for Temporary Profit	86
The "Closed Shop" Un-American and Dangerous.....	86
The South and the Negro.....	87

SYMPOSIUM

The Twelve Hour Labor Day in Steel Works.....	89
Welfare Work of United States Steel Corporation.....	95

NEWS ARTICLES

How Houses Are Moved Intact Across Kanawha River at Charleston.....	106
New \$2,000,000 Freeport Sulphur Company Plant at Hoskins Mound Goes Into Operation.....	107
Co-Operative Banks in Massachusetts and Their Influence in Home Owning Operations.....	109
Sorting Mail by Machinery.....	111
Nearly \$30,000,000 of Southern Public Improvement Bonds Sold During May—Year to Date Shows Total of Over \$114,000,000.....	113
Lumber Prices and Prospects in Baltimore.....	114
Government Allows Cotton Exporters, for Reasonable Period, to Define U. S. Standards in Terms of Foreign Equivalents.....	116
Steady Increase in Southern Industrial and Building Activity.....	116

DEPARTMENTS

The Iron and Steel Situation.....	119	Construction	128
Railroads	121	Machinery, Proposals and Supplies Wanted	130n
Textile	122	New Financial Corporations.....	130p
Good Roads and Streets.....	124	New Securities.....	130p
Lumber and Building Materials.....	125	Trade Literature.....	132
Mechanical	126	Industrial News of Interest.....	134

PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO., BALTIMORE, MD.

Branch Offices: New York, 901 Singer Building; Chicago, 11 South La Salle St.; Boston, 734 Old South Building; Cincinnati, 923 Union Trust Building.

SUBSCRIPTION RATES

\$6.50 a year (in advance); six months, \$3.50; three months, \$2.00 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada, add postage \$2 a year. For other foreign countries, add postage \$5.50 a year.
Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each.

In ordering change of address, give old as well as new address.

MEMBER ASSOCIATED BUSINESS PAPERS, INC., AND AUDIT BUREAU OF CIRCULATIONS.


Our Warper with Fluted Cylinder Reduces Slasher Waste

Let's Talk It Over. You want to know. Our Salesmen and Experts are at your service.

DRAPER CORPORATION

Hopedale Massachusetts

Southern Office Atlanta Georgia

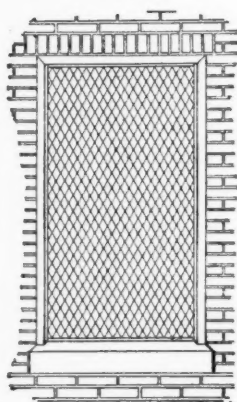


Don't depend on teams, trucks or inclines for hauling. Use the air. Overhead haulage is practical, economical.

Send for Catalog No. 84
BRODERICK & BASCOM ROPE CO.
ST. LOUIS, MO.

New York Seattle F340

B & B Aerial Tramways



**WIRE GUARDS
BANK GRILLES
RAILINGS
FIRE ESCAPES
ORNAMENTAL IRON
AND
WIRE WORK**

Send for Folder "G"
which shows many designs

The Dow Co.
Incorporated
302 N. BUCHANAN ST.
LOUISVILLE, KY.

WIRE WIRE

Iron—ROUND—Steel
for

Ropes—Brooms—Mattresses—Staples
Pins—Clips—Hair pins—Weaving
Lath Binding—Bundling purposes, etc.

FINISHES

Bright—Tinned—Galvanized—Liquor Finish—Coppered—Soft Annealed

Specialize in
Fine Sizes and Fine Quality

THE SENECA WIRE & MFG. CO., FOSTORIA, OHIO

Warehouse: J. R. REGNAS & CO., Atlanta, Ga.



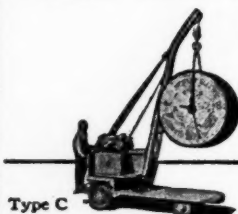
LIFT AND CARRY GOODS AND MATERIALS

VIA
ELECTRIC INDUSTRIAL TRUCKS

Over 200 Branches of Industry served by
ELWELL-PARKER equipments today.

Lighten Labor—Speed Production—Increase Profits
Catalog 1209

THE ELWELL-PARKER ELECTRIC CO.
Cleveland, Ohio



Type C



Type E

A. LESCHEN & SONS ROPE CO.

EXPERIENCED MANUFACTURERS
OF

**WIRE ROPE
AND
AERIAL
WIRE ROPE
TRAMWAYS**



SOLE MAKERS OF

"Hercules" (Red-Strand) Wire Rope
ST. LOUIS, MO.

NEW YORK CHICAGO DENVER SAN FRANCISCO



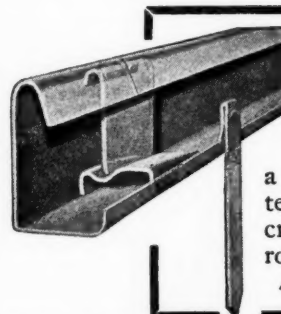
NICHOLSON FILES

First in the Esteem of Master Craftsmen in the world over.

A File For Every Purpose

NICHOLSON FILE CO.
PROVIDENCE, R. I., U.S.A.

WHY CONTRACTORS PREFER THE CARR FORM



QUICKLY set wedge lock joints. Ample bearing surface. Extra section length. Easy edging. Stakes set at any point. Three-sixteenths inch metal. Concrete cannot lodge on rounded top.

Ask for Form Bulletin 44-M

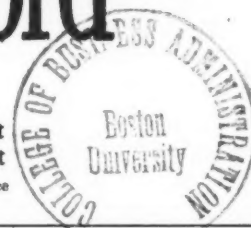
THE LAKEWOOD ENGINEERING COMPANY
CLEVELAND, OHIO
MANUFACTURERS OF CONSTRUCTION EQUIPMENT

Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development
of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office



Vol. LXXXIII No. 23 }
Weekly. }

BALTIMORE, JUNE 7, 1923.

{ SINGLE COPIES, 20 CENTS.
\$6.50 A YEAR }

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Cor. Commerce and Water Sts.
BALTIMORE, MARYLAND

RICHARD H. EDMONDS, President FRANK GOULD, First Vice-President
VICTOR H. POWER, Second Vice-President
I. S. FIELD, Secretary J. ROBERT GOULD, Treasurer

RICHARD H. EDMONDS, Editor

BRANCH OFFICES:

CHICAGO, 11 So. La Salle St. NEW YORK, 901 Singer Bldg
BOSTON, 734 Old South Bldg. CINCINNATI, 923 Union Trust Bldg

SUBSCRIPTION RATES:

\$6.50 a year (in advance); six months, \$3.50; three months, \$2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$2 a year. For other foreign countries add postage \$5.50 a year. Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

In order to avoid delays all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

THE CABINET IN FAVOR OF BUILDING POLICY FOR GOVERNMENT WORK.

THE Secretary to the President, Mr. George B. Christian, Jr., in a reply to a query from the MANUFACTURERS RECORD as to the reported discussion in the Cabinet of building operations by the Government, wires:

"Cabinet has spoken in favor of building policy to meet urgent needs in Washington and in several large and rapidly growing cities. Nothing can or will be done until Congress approves."

It is important for the public to know that the President's Cabinet fully realizes the great need of a broad building campaign to meet the pressing needs of the Government where facilities for post office and other Governmental business are wholly inadequate to the requirements of the hour. It depends upon Congress to what extent the views of the Cabinet will be followed in this much needed program.

TOTAL EXPORT AND IMPORT VALUES.

DURING the ten months ending April, the United States exported \$3,264,858,000 worth of domestic merchandise. This is \$194,513,000, or 6.3 per cent, more than the total value of domestic exports for the corresponding ten months of 1922.

Imports figures for this period have not been issued by the Department of Commerce, but the total value of imports for the nine months ending March amounted to \$2,724,837,000, which is \$847,059,000 more than the total value of imports for the nine months ending March, 1922.

In proportion during recent months our import values have been increasing faster than our export values. The value of imports for the nine months ending March, however, is now higher by \$65,000,000 than the total value of our imports for the twelve months of 1917, and \$830,000,000 more than the value of imports for the twelve months of 1914.

The total value of domestic exports for the ten months ending April, 1923, amounts to \$1,193,000,000 more than the total value of exports for the twelve months ending 1914.

A BANKER'S VIEW ON NECESSITY OF CONTINUED BUILDING EXPANSION.

AMONG the leading banking houses of the United States, engaged for many years in handling loans on building operations, is that of S. W. Straus & Company of New York, than whom probably no concern in the country is better informed as to the building situation. Mr. S. W. Straus, returning to New York a few days ago after an intensive study of building conditions in England and France, said: "Still higher building costs, higher rents, general unemployment and a slowing up of all business will result unless necessary building operations are continued."

In this statement Mr. Straus is unquestionably correct. Building operations should go on wherever men or corporations feel that the work can be done to profit. Discussing this situation Mr. Straus gives his views to the MANUFACTURERS RECORD as follows:

"Above everything else all necessary building operations must be kept going on as extensive a scale as the supply of labor in the building crafts will permit. If building operations generally slacken it will mean a let-down in all other lines of business. It will mean the creation of a still more acute building shortage, higher rents, increased costs of living and general unemployment.

"The situation as it now stands, however, is by no means alarming. The law of supply and demand as well as the equally immutable instincts of human nature comprise the entire problem.

"All elements of the industry must work together not only amicably, but patriotically, to bring about stabilization of building costs.

"Prices generally will not go lower, and the longer stabilization is postponed the higher will be the eventual stabilized level. Also the higher building costs go the higher every other commodity will go.

"Ever since the summer of 1918 people have been talking about lower rents and lower building costs, but prices have continued to go higher. The fundamentals that have caused this upward swing are still in existence.

"Stabilization of building costs can be effected only through an equalization of demand and supply. This can be accomplished by postponing operations on a basis of priority in keeping with the situation in each city or community affected. For example, one city may have an adequate supply of commercial buildings, but may be short of residential structures. Conditions of progress in another city may be impeded through a shortage of industrial buildings or hotels. Still another city may have an alarming lack of school facilities. It is the patriotic duty of labor, finance, contractors, material interests and all other elements to concentrate their efforts on such

types of buildings as are most vitally necessary to the general welfare of the respective communities, thus giving to the people the buildings now most needed and postponing for the future benefit of the industry the construction of such structures as can now be delayed in the interest of public welfare.

"Such a program will, in my opinion, stabilize prices and assure a long period of prosperity not only in the building industry, but in all lines of business as well.

"Such a plan will give labor more money by furnishing steady employment throughout the year and thus remove the incentive for a continually higher daily wage.

"The situation merits the unstinted, patriotic support of all citizens, not only because of the effect such an attitude will have on their present condition, but also on account of its effects on the welfare of their children in labor years. For it must be borne in mind that current conditions if not corrected will grow more acute and chaotic as time goes on. Labor particularly should assume this attitude in lending every help to tide over the delicate situation. It is a matter of simple reasoning and logic that we cannot go on indefinitely pyramiding building costs, thus making it impossible for the builder to estimate with accuracy the cost of his operation at completion.

"I realize that the means of effecting such a program lies to quite an extent in the hands of the banks and other lending institutions, because they have it in their power to make only such loans on new construction as shall prove helpful to the situation.

"In behalf of S. W. Straus & Co. I can say that it will be our policy to adhere unswervingly to such a course as shall make possible the practical application of the plans of stabilization and relief here outlined. Not only must each individual loan comply with all our usual requirements for safety, but the borrower must be able to show that his project is a vital and immediate necessity in his community and that it will not interfere with any other project of perhaps still greater public need. Such a course has in fact been one of the fundamental policies of S. W. Straus & Co. in making loans on new buildings throughout the country, and our course in the present situation represents no change of attitude on our part excepting an absolute refusal to finance any project which might, through the processes of competition, in the slightest degree tend to create undue advances in building costs in the community affected and thus delay the advent of stabilized conditions."

In a subsequent telegram to this paper in reply to a query as to an elaboration of his views Mr. Straus wired:

"Appreciate your invitation to elaborate points in my statement on building situation but for time being prefer letting statement stand as sent you. Feel deeply that the situation is one calling for patriotic co-operation of all elements in industry."

AVAILABLE PRIMARY POWER AT MUSCLE SHOALS.

IN a recent issue of the MANUFACTURERS RECORD Lieut.-Col. G. B. Pillsbury, Corps of Engineers, Acting Chief of Engineers of the War Department, was quoted in regard to Muscle Shoals from a letter to this paper as follows:

1. "I am in receipt of your letter of April 10, 1923, in which you request information as to the total horse power to be developed at Dams Nos. 2 and 3 on the Tennessee River. The plans of this Department contemplate the construction of powerhouse foundation at Dam No. 2, in which provision will be made for the eventual installation of power units aggregating approximately 600,000 horse power. If the ownership of the dam is retained by the United States, the rate of installation of these units will depend upon the power demands. Up to the present time contracts for four complete

units of 30,000 horse power each only have been made.

2. "Construction of Dam No. 3 has not as yet been authorized, and no definite decision has therefore been reached as to the eventual power development at that dam.

3. "Continuous gage readings at Florence, covering the period from November, 1871, to date, have been made. These records show that, based on stream flow alone, without any draw down of the pools or other regulation, 87,300 horse power would have been available for 99½ per cent of the time at Dam No. 2. Under similar conditions 141,000 horse power would have been available for 83.3 per cent of the time; 205,000 horse power available for 66⅔ per cent; 306,500 horse power for 50 per cent, and 600 horse power about 21 per cent of the time. For Dam No. 3 the corresponding figures are 34,000 horse power primary, 55,500 horse power 83⅓ per cent of the time; 81,000 horse power 66⅔ per cent of the time; 122,500 horse power 50 per cent of the time, and 250,000 horse power 21 per cent of the time. It is claimed that storage reservoir sites exist on the headwaters of the Tennessee River which will provide for storage of sufficient water to approximately double the low water flow, but these claims have not been substantiated by any investigations made by this Department. There is, however, under way a survey from which it is expected that data covering the possible reservoir sites will be fully developed. From this information it is thought that you can draw your own conclusions as to how easy a matter it would be to develop a million primary horse power from the Muscle Shoals Station—(Italics ours.)

4. "Mr. Henry Ford's offer for the Government property in this locality to which you refer, apparently contemplated the installation of power units aggregating 600,000 horse power at Dam No. 2, and the construction of Dam No. 3 and the installation of 250,000 horse power at that dam."

Mr. Francis E. Frothingham of New York wrote to this office questioning the inference editorially drawn from this statement and suggesting that it was probably made in a spirit of sarcasm. Mr. Frothingham's letter was referred to the Engineers' office of the War Department, and in reply Brigadier General H. Taylor, Assistant Chief of Engineers, writes as follows:

"Your assumption that one million primary horse power can be developed appears to be based entirely upon the last sentence in paragraph 3 of the letter to Mr. Albert Phenix from this office of April 17, which reads 'From this information it is thought that you can draw your own conclusions as to how easy a matter it would be to develop a million primary horse power from the Muscle Shoals situation.' It is regretted exceedingly that you misunderstood this sentence. Mr. Frothingham was entirely right in the last sentence of paragraph 2 of his letter of May 9 to you when he stated 'It seemed to me that his remark was made to call attention to the enormous discrepancies between claims and possibilities.' There was no sarcasm intended, as Mr. Frothingham appeared to think. From your evident misunderstanding of this sentence it now appears that it should have been expressed: 'From this information it is thought you can draw your own conclusions as to whether it would be possible to develop a million primary horse power from the Muscle Shoals situation,' but it was thought that with the data which was given in paragraph 3 of the letter from this office of April 17, it would be so obvious that one million primary horse power could not be developed that there would be no misunderstanding of what was intended. I am quite sure that if you will read the letter referred to carefully you will come to the same conclusion.

"I find nothing in Mr. Frothingham's letter to which to take exception, other than the inference that there was any sarcasm intended in the previous letter from this office."

The suggestion of the MANUFACTURERS RECORD in reply to this statement would be that when the Engineers of the War Department have any statement to make in regard to matters of such vital importance to the country they make it in such a way that no one could misinterpret their meaning; and certainly their statement in regard to this matter was very badly worded. Especially in view of the 4th paragraph of Lieut.-Col. Pillsbury's letter which said that Mr. Ford's proposition apparently contemplated the installation of 850,000 horse power. Certainly the inference drawn by the MANUFACTURERS RECORD was the only one that could naturally be drawn from these statements.

WILL THE NEXT PRESIDENTIAL CAMPAIGN BE FOUGHT ON THE "WET" AND THE "DRY" ISSUE?

THE Alabama Christian Advocate takes account of the fact that there seems to be a disposition in some parts of the country to have the Democrats nominate for the presidency a wet candidate. Referring specifically to some statements on that point the Advocate, while disavowing all political affiliation, says:

"From this political writer's article we learn that the two outstanding wet figures in the United States, that is, the two figures that the wets will support, are Mr. Underwood and Governor Smith of New York. Now, the plan is to run Mr. Underwood. This political writer says that all the avowedly wet states will support him. The wet Eastern states, counting New York, New Jersey, Massachusetts, and others, and then of course the Solid South, would vote for him."

On this point the editor of the Advocate says that the Solid South will not support Mr. Underwood, or any one else on a wet ticket, and adds:

"If Mr. Underwood comes out openly as a candidate for the wets it will have the effect to do what the Republican party has been wanting to do for sixty years—it will split the Solid South. The Southern Democrats do not want to support a Republican, not even a dry Republican; nor do they want to support an independent dry Democrat. They prefer to remain regular. But the wet side cannot ram a wet candidate down our throats just because he is a Southerner."

We believe the Advocate is correct. We do not believe that the South will vote for a wet candidate merely because he is a Southern man or a Democrat.

Last November, when Governor Edwards was elected to the United States Senate on a straight wet platform, we called attention to the fact that Mr. Woodrow Wilson wrote him a letter of congratulation in which he said:

"I was hoping to have a chance to take you by the hand and congratulate you on the new honors that have come to you. Now we shall, after awhile, both be Washingtonians, and we can then colloque on the events, old and new, to our hearts' content. With warmest appreciation and most cordial greetings."

The dictionary defines "colloque" as "to converse; to hold a colloquy; to confer secretly, especially with mischievous intent; to talk confidentially, with suggestion of plotting; to use flattery and deceit; to wheedle." Now, of course, Mr. Wilson did not mean any of these things except, perhaps, he did mean that he wanted to converse with Governor Edwards, but we raised the question at that time as to whether Mr. Wilson in desiring to "colloque" with Governor Edwards, who was accounted the "wettest of the wet," would undertake to make the Democratic party the representative of the wet interests in the next presidential election, and we added:

"We hope for his own sake and for that of the Democratic party he will not 'colloque' for that purpose, for if some Eastern Democrats are 'wet,' millions of other Democrats are 'dry.'"

The questions raised by the Alabama Christian Advocate are interesting in this connection. Will the Democratic party undertake to force a wet candidate down the throats of Southern people on the ground that he is a Southern man? President Harding apparently seems determined to become the driest of the dry and to stand for a rigid enforcement of the Prohibition law. Are we thus to have the possibility of the next presidential campaign being fought mainly on the basis of prohibition versus the liquor interests?

A NATIONAL AWAKENING TO RIGHTEOUSNESS.

ONE of the most remarkable phases of the spirit of the day is the outspoken expression of the need of increased attention to religious activities voiced by the foremost business men of the country in business gatherings as well as by the secular press.

A few weeks ago we published a letter from President Edgerton of the National Association of Manufacturers in which he said:

"It was never so necessary as now for high-minded citizens to speak and act as boldly and courageously in defense of American institutions as it is today. The chief enemies to the restoration of tranquility throughout the world, and to the stabilization of conditions, are hatred, prejudice, revenge and greed, which are manifesting themselves in international relations and in relations between classes, races and sects. At some points there is entirely too much tolerance, and at others there is too much of hateful intolerance. Only the gospel of Love, which was preached by the Prince of Peace, and only the principles which were embodied in His life, will save America and the world. No League of Nations nor any other compact or instrument of understanding will hold against the destructive influences of evil, except they be founded upon the solid truths enunciated by the Savior of mankind, and are permeated by the spirit of brotherly love that He proclaimed."

Last week attention was called to the fact that Judge Gary's annual address to the American Iron and Steel Institute was largely devoted to religious questions and to laying emphasis upon the necessity of men following the teachings of the Bible.

Recently Mr. J. H. McLauren, President of the American Wholesale Grocers Association, in referring to the fact that his organization is "one with a heart" composed of hundreds of men who recognize that "getting gain" is not the chief end of life, said:

"Men are believing today as never before in the history of our business life, in owning and acknowledging an accountability to God and a recognition of the controlling influence of religion in the business life of this country and after all, that is the only sure guarantee that we have that as a business nation America will continue its leadership in the world's commerce."

In its confidential circular letter to its clients The Whaley-Eaton Service, of Washington, in its opening paragraph of May 26, said:

"We reported many months ago that certain political circles were watching the President's golfing with great interest, in the hope of securing campaign material, of a personal nature, for use next year. Now one of this watching group says: 'It is no use; the President has become evangelical. There is no nineteenth hole at Chevy Chase any more and Mr. Harding is practicing religion.' So the report runs in close circles, mostly antagonistic to the Administration, and they do not know exactly what to make of it. The tendency of men charged with the exacting duties of the Presidency is to become imbued with a deep religious sense and rely more and more on Divinity."

These are but typical indications of the spirit which is abroad in the land; a spirit which appreciates the supreme importance to the individual man and to the world of a recognition of Divine authority and of service to mankind. Everywhere business men are voicing this thought. In former years men who were of a deeply religious nature largely confined their discussion of religious questions to religious gatherings, but today the outstanding men of the country are making this one of the dominant thoughts in great business gatherings. Never before has this been so pronounced. Moreover, the secular papers of the land are discussing religion in the same way with a keenness, an alertness, and an enthusiasm for the fundamentals of religion such as was never seen before in this, or probably in any other land.

In the newspapers and in correspondence from business

men one will now see ten times oftener than heretofore reference to the Golden Rule as essential in every line of human activity.

We are not among those who believe that the world is growing worse, however strong may seem the evidence that way sometimes. We are not among those who believe that true religion is losing its power over mankind because men do not all think exactly alike or teach exactly alike on the interpretation of the Bible. No man who believes the Bible and who accepts its great truths need for one moment ever fear that God is not equal to maintaining the real truths in regard to the inspiration of the Scriptures. Ministers and educators may here and there antagonize each other on the question of evolution. The man who believes that he is descended from the beasts of the field or monkeys or apes may prefer that interpretation and call it scientific; but we believe that man, as man, was directly created by the Almighty who breathed into him the breath of life. And yet we feel that harm is sometimes done by the bitter denunciation of those who believe something else.

Men are seeking for the truth. Some of them think science leads one way, and some think it leads another. True science can never be false to a rightful interpretation of God's word, but much that parades as science in one generation is completely discarded and sent to the scrap heap in another generation. New discoveries are constantly throwing into the discard the things that scientific men thought they had proven to be eternal verities. Science has not yet reached its final stage. All that it is doing is groping in the dark. Many things which scientific men today tell us are true, other scientists will tell us tomorrow are wholly untrue. To base a man's belief on some of the so-called scientific teaching of the day is to base it on a sand foundation, for such teachings can prove nothing. They only deduce theories from other theories which cannot be proven.

A few years ago the foremost physicians of the world used some methods in their practice on the basis that they were the last possible word in scientific treatment of various diseases, which today would be regarded as a disgrace to the profession. There is no real science yet in medicine. The ablest physicians in the world admit that they are groping in the dark. But now and then men of less ability make a pronouncement as though they had reached the final analysis of all possible scientific discoveries in some line of medicine, only to find later on that what they thought was science had no scientific basis.

The same thing is true in chemistry and metallurgy and in many other lines. Science has not reached its end. It has not made all of the discoveries which it will make. Much that we accept today as scientific and the last word in chemistry and metallurgy and electricity, will a few years hence go to the scrap heap. Step by step science leads from one abandoned position to another. The thing which science says cannot be done, is the thing which often becomes a reality. Science decried any possibility, and that too only a few years ago, of the flying machine as we have it today. Science would then have said that a non-stop flight across the continent was an impossibility, and that no man could leave Texas in the morning and be in Canada that evening, as was recently done. But these impossible things have become realities.

The world is moving forward step by step to higher things in material and spiritual affairs alike. But the scum rises to the top in the process of fermentation now under way. Nothing that science proclaims today can by any possibility overthrow the great truths which Almighty God has recorded in His Book of Books. We may misunderstand some of these truths, or misinterpret them, or not comprehend them any more than the layman can comprehend some

of the things which the scientist claims. But that the world is moving forward to higher and better things, and that business men everywhere are reconsecrating their lives to the service of humanity and of God, and are willing to stand out as never before and tell the world and their business associates that business itself can only be founded in safety on religion, is one of the most remarkable movements in human history.

MUSCLE SHOALS AND HENRY FORD.

THE Lincoln Mills of Huntsville, Ala., in a letter to the MANUFACTURERS RECORD, writes:

"The question of building a mill at Huntsville hangs entirely on the matter of getting additional power. Our present line being over-loaded, calls for a new line. While the Alabama Power Company is willing to put this line in, the people of this part of the South are afraid that it may interfere with the locating of Mr. Henry Ford at Muscle Shoals and, for this reason, they are opposing us in getting power here. Unless we can get additional power, there will be no mill built in Huntsville by our company."

We believe that the opposition to the new line of the Alabama Power Company is a mistake, for the building of such a line will not, we think, settle one way or the other the question as to whether or not Mr. Henry Ford will secure Muscle Shoals. We believe that this country, after more than a year's study of Mr. Ford's proposition, is coming to the conclusion that if Mr. Ford is not willing to back his proposition with his own fortune the Government should never accept his offer.

Muscle Shoals is an asset of almost immeasurable value. To turn it over to any one man, or any one company, or to any group of companies, unless backed by the full wealth of that man, or of the companies, with a guarantee of development to the full limit of the power, and to the use of that power in the South, would be a blunder. Unless Mr. Ford will back his proposition with his entire wealth, or with a company so abundantly financed that there can never be any question of success, and unless he will guarantee to use that power in the South and not transmit it to other points where his plants might be established, and unless his guarantees and his contract are so safeguarded as to protect the nation to the utmost extent, Congress should not accept his offer.

And the same is true as to any other individual, company or group of companies.

Moreover, no individual or company should be granted this power for a greater period than fifty years. To extend the proposition to 100 years, as Mr. Ford has proposed, would be a grave mistake. Muscle Shoals is a national asset of immense value. It is in the very heart of the country. Its fullest utilization can be made of enormous value to the entire country. Because the Government has had to sell some of its army camps and enterprises built for manufacturing purposes at a small fraction of what they cost is no argument whatever in behalf of selling the control of the Muscle Shoals situation at a low cost. Army camps and factory buildings established especially for some particular industry were of temporary value. They were built for war purposes. When war was over their value largely ceased. But Muscle Shoals is an entirely different proposition. Nature has given to the country this great hydro-electric possibility, with river transportation available, and the nation should not part with its control on any theory that its value must be estimated on a basis of writing off the cost of work as in the case of army camps. Muscle Shoals has a strategic situation, of immense value to the country, because it is located close to the very business heart of the Mississippi valley, with its illimitable resources, and away from the border line where danger might always lurk.

HOW TO STOP NEGRO MIGRATION.

IN discussing negro migration at a meeting in Jackson, Miss., called for that purpose, Mr. W. W. Stone, former State Treasurer and a large plantation owner, is quoted as saying:

"I have lived in the delta for sixty years. I have lived among and handled negroes, and the reason why the negro is leaving Mississippi is because some white men are swindling them. I know lots of folks who have become rich in this way. They think they are fooling the negro, but they are not."

And in further reference to the subject Mr. Stone said: "Strict observance of the golden rule among both races is the only solution to the problem."

The last statement of Mr. Stone gives the only solution to world problems. Until the golden rule guides men in all of their relations with other men there will never be peace and harmony between individual men or between nations.

That negroes have been swindled by unscrupulous white men is true. They have likewise been swindled by sharp, tricky men of their own race; but that does not have the same influence upon them as being swindled by a white man. The white man who swindles a negro, or robs him of his pay, or cheats him in a trade, is meaner in soul than is the mangy, flea-bitten cur that slinks into the back alleys of Constantinople and lives on the garbage of that unclean city. It is bad enough for a white man to swindle a white man; it is worse for him to swindle a negro.

In one sense the negro race is a child race. It has many of the peculiarities of children, good and bad, needing firmness at one time, kindness and consideration at another time. Rightly treated, negroes look to the better class of whites with the same kind of feeling that the child looks to the man or woman who treats it rightly. The white man who would swindle a negro would swindle an infant in arms or rob a sickly baby of the bottle of milk upon which its life might depend.

And yet we have had such conditions in parts of the South. There has been a disreputable, dishonest, scoundrelly element there, as elsewhere, which thrives upon robbing the inferior race not able to protect itself. It is the duty of the white people of the South of honor and integrity and morality to drive out of the South, if they cannot be reformed, every white man who swindles the negroes. The toughest slave trader in olden days was not as mean and despicable a creature as a white man of this kind. If reformation is impossible or no way can be found of putting them in the penitentiary where they belong, then they must be driven out of this section, so that every negro may know that he is going to be honestly and fairly treated by the white people of his community. That is one way in which must be put into effect the forces which can help to develop the negro race and keep the negroes at home; and in doing this the white people of the South and the negroes alike would be benefited.

A BOOK ON VIRGINIA.

THE States Publishing Company of Richmond has issued a book entitled "Our Virginia." In sending this book to us the company writes, "We believe you will be interested in the idea of this book, for it is intended for nothing else than to sell the state of Virginia to Virginians. It starts at the right place—when the person is young. We expect to cover most of the states in the South with these little books, getting out a separate book for each state."

A card describing the book says, "It is a real home geography, a geographical reader for young children in grades three and four. There are over 100 illustrations to help you teach Virginia geography. The author, E. Ehrlich Smith, has worked out every lesson with young children."

AN ENGLISH BORN COTTON MANUFACTURER LIVING IN THE SOUTH WRITES OF COTTON PRICES.

IN a letter to the MANUFACTURERS RECORD Mr. Wm. Entwistle, superintendent of the Pee Dee Manufacturing Company of Rockingham, N. C., referring to some recent matter in the MANUFACTURERS RECORD in regard to the century-old effort of Great Britain to free itself of dependence upon the South for cotton, writes:

"Thanks for informing us that over seventy years ago Charles Dickens predicted the Lancashire Cotton Famine of 1862-66. Surely England cannot be blamed for taking steps to prevent a recurrence of those distressing times.

"As a Lancashire weaver the writer struggled hard through that calamitous cotton famine. Millions, directly and indirectly affected, were reduced to a very keenly felt measure of starvation. A large portion of the cotton mills were closed for years, the machinery rusting—rotting as it were—fit only for the junk pile. I differ with the remarks of Mr. Arno S. Pearse, General Secretary of the International Federation of Master Cotton Spinners and Manufacturers Associations of Europe, in an address at Rio de Janeiro, August 16, 1921, regarding a desire for low wages in Southern cotton fields inasmuch as I believe it would best help the expansion of overseas cotton growing associations for American cotton to be high rather than to be produced by low wages. It is not true as remarked by the President of the Cotton Farmers Union that the 'American cotton farmer would no more continue to allow his wife and children to work in the fields.' With a few exceptions, the wife and children do work in the fields, though 30 cent cotton, if continued, will undoubtedly increase the exceptions."

Mr. Entwistle is able to speak from experience in regard to the desperate condition of the Lancashire cotton industry during the Civil War. It is true, as he says, that the wives and children of cotton farmers are still working in the cotton fields to a large extent, but this is not good for the wives and the children nor good for civilization. Higher priced cotton, which would enable the farmer to raise cotton without the grinding work of wives and children in the cotton fields, would be a blessing to all. The MANUFACTURERS RECORD in no wise whatever criticises the European people for seeking to raise cotton in other countries; it only points out the fact that after a hundred years of struggle they have not accomplished anything of importance. If Europe can raise cotton elsewhere at a lower cost and to better advantage than the South can produce it, then by all manner of means let Europe do it. But our objection is to Europe trying to break down the price of cotton and hold it at a figure so unprofitable that the Southern cotton grower can eke out only a scanty living.

The whole cotton growing business of the world is on a false basis—a basis practically of slave labor, in the matter of cost in the minds of the cotton buyers. It was slave labor in the early days which raised cotton and sugar on British plantations in the West Indies and in other British colonies; it was slave labor that produced cotton in the South up to 1865; it is slave labor, measured by the rate paid, which produces cotton in India. The world has been so long accustomed to low prices of cotton, based on slave labor or on labor paid wages so low that the laborers are held in economic slavery, that it is difficult for the world to understand that economic conditions are changing. The supply of cotton will be steadily decreased by low prices, or its production will be increased by prices high enough to give a living wage to the cotton grower.

If Mr. Entwistle thinks that our discussion of the subject is based on any criticism of England's attempts to raise cotton he has misinterpreted our meaning. We were only pointing out the historic side of the case and showing how the propaganda in favor of raising cotton elsewhere has for a hundred years been used for the express purpose of breaking down the price of cotton here.

CONVICT LEASING MUST GO.

THE moral forces of Alabama have been as tremendously stirred as were the same forces in Florida recently by the discovery of the atrocious conditions prevailing in the leasing of convicts. According to many reports which have been made, the situation in Alabama seems to be even worse than the rottenness developed in the investigation in Florida. It is an infinite pity that any state in the Union should still at this late day of supposed civilization and Christianity be guilty of the unpardonable crime of leasing out convicts, county or state, and thus making each convict ten times more a convict in spirit than he was before. To Florida's credit the state Legislature has abolished the leasing of convicts.

The inhuman brutality proven in the investigation in Florida has been matched by the brutality proven in Alabama. Until Alabama and every other state in the Union which permits the leasing of convicts to contractors or lumber operators or coal mining companies ceases so barbarous a practice, it must carry on its escutcheon a blot which can never be effaced until the whole accursed system is wiped out of existence. Criminals are criminals and should be punished, but inhumanity to criminals only makes criminals more inhuman and more devilish. Many a man has been sent to a convict camp for crimes which in thousands of cases have gone unpunished when committed by other men in states where the convict leasing system does not exist. Some of these convicts deserve severe punishment, but that punishment should be legal and should never be left to the decision of some "beating boss" or some other man of criminal instinct as great as the criminal instinct of the man he beats.

It is gratifying to note that the moral forces of Alabama, men and women alike, have been aroused to this situation, each making a strong effort to blot out this dark stain upon the fair fame of that good State. But heroic work must be done. Corrupt politicians are always eager to find some way in which directly or indirectly to make a profit out of the convict system, and there are some business concerns which are always ready to bid for the leasing of convicts.

We think every coal mining company, and indeed every other company in Alabama or elsewhere, which uses convicts in its work is making a very serious blunder, for its own individual welfare and for the good of the State. Every organization of that kind bears a large degree of responsibility for the moral upbuilding of the state, for only through moral upbuilding is property made safe. And yet there can be no general moral upbuilding where the convict leasing system prevails. It is bad, unalterably bad, and a curse to the state which permits it.

LENDING MONEY FOR BUILDING OPERATIONS AT LOWER RATES THAN FORMERLY.

The cost of money for building operations has often been almost prohibitive, for many money lenders have been greater profiteers than the much-abused building material men or the workmen. Recently a report came to the MANUFACTURERS RECORD that the Adair Realty & Trust Company of Atlanta, had been lending insurance money on a large scale, in Florida especially, as well as in other Southern states. In a reply to an enquiry on the subject, Mr. Frank Adair, vice-president of the company writes the MANUFACTURERS RECORD:

"Through the Metropolitan Life Insurance Company, we are responsible for the State of Florida securing, in the past fifteen months, more money with which to finance meritorious real estate projects than had ever been known in the history of the state.

"The Metropolitan allowed us to go in all towns of 10,000 and over. This included Jacksonville, Tampa, Pensacola, Miami, West Palm Beach, Orlando and Lakeland.

"Previous to January 1, 1922, most houses and stores were financed locally, at extremely high rates of interest. During the year 1922 we made 113 loans on dwellings, apartment

houses and hotels, totaling \$997,250, in the cities mentioned. In addition, we made two bond issues, totaling \$405,000—or a total for the year of \$1,402,250.00.

"From January 1 to May 30, this year, we have made 66 loans on dwellings, apartment houses, totaling \$289,200, and one bond issue of \$310,000—totaling \$599,200, or a grand total of \$1,902,450 since we started operations.

"Soon after our entrance into state through the Metropolitan, other life insurance companies and mortgage houses began to see the opportunities and within the past year there have been seven life insurance companies to enter the state for the purpose of making loans who previous to that time had refused to enter.

"So, Florida is now enjoying lower interest rates and more money for financing dwellings, apartment houses and office buildings than it had ever known in its history.

"We loan in all cities in Georgia of over 10,000 and purchase bond issues in any Southern city, from Washington through Texas.

"It has always been easy for large, prosperous, growing cities to secure funds, but it has been difficult for the smaller cities. We have endeavored to a large extent to assist the smaller cities in the construction of dwellings and apartment houses."

In a growing section like the South, which is as yet without large accumulated reserves of capital, interest rates are often too high and local money difficult to obtain. It is therefore especially important that money in large quantity and at low rates of interest should be brought into this section from the vast accumulations in the East. We are therefore glad to see that the Adair Co., like many others, is carrying on such aggressive work in this line.

HELPING THE INDIVIDUAL TO OWN HIS OWN HOME—EXAMPLE OF MASSACHUSETTS FURNISHES AN INSPIRATION.

HOW the "co-operative banks" of Massachusetts have operated to foster and confirm habits of thrift and the desire to become the owner of a home is interestingly told in an article in this week's issue of the MANUFACTURERS RECORD, written by Joseph C. Allen, Commissioner of Banks, of Massachusetts. Mr. Allen reviews the history of the co-operative bank, essentially a home building institution, similar in purpose to the building and loan associations of other states, and shows how these institutions have steadily grown in the past 40 years from small numbers—less than 20—and with assets of a few hundred thousand dollars, to more than 200 in 1922, with assets of over \$225,000,000. Loans up to 80 per cent of the value of a home are granted to holders of shares, with a maximum amount for any one loan fixed at \$8000. No other agency or instrumentality in Massachusetts, it is declared, has accomplished so much in assisting the working man to own his own home, and as the payments are extended over 12 years' time, the terms of payment are reduced to an easy minimum.

The Massachusetts co-operative bank is thus presented as an effective medium through which home owning by the wage earner may be facilitated, and as such it is worthy of careful investigation by other states. The enormous bulk of deposits in the savings banks of Massachusetts, amounting to more than \$1,250,000,000, are exceeded alone by those of New York, and demonstrate an ingrained thrift that has become a fixed characteristic of practically the entire citizenship. With such a background of conservatism and financial solidity, the adoption of the co-operative bank plan gives to it a strong prestige. Anything that will increase the percentage of home owners among the populace is of enormous benefit to the individual and the family, and is furthermore the strongest possible safeguard to society and government. Building and loan associations or co-operative banks whichever seem best adapted to conditions locally, should be furthered and strengthened in communities everywhere, for self-help of all help is the help that most greatly benefits the individual and through him the state.

EASTERN AND WESTERN MISINFORMATION ABOUT THE SOUTH.

MR. J. G. ANDERSON, Chairman of the Anderson Motor Company, Rock Hill, S. C., gives the MANUFACTURERS RECORD some illustrations akin to those we recently published as to the dense ignorance of many Northern and Western people about the opportunities and the civilization of the South. In his letter Mr. Anderson said:

"The people of the North and West, that is the rank and file, have an erroneous idea as to conditions in the South. A young man recently employed by us, coming from New Jersey, said that he was at first afraid to come South because of the liability of being the central figure in a lynching party. This young man was perfectly sincere and really thought that he stood some chance of getting into trouble. I have heard other matters of the same kind just as ridiculous. An educator of Boston told me once that he wanted to come down to the Carolinas and go out in the orange groves and pull the oranges off the trees with his own hands. When I told him that when he reached the Carolinas he would be just about half way to the orange groves, he seemed to be very much surprised.

"We have automobile dealers here almost every day and they come from various sections of the United States. Every one of them, on their first visit, show that they are surprised to see that we have a town with paved streets and electric lights and sewerage, and that we are not burning up from the hot sun, and that alligators are not crawling around in the streets, etc. The South should do something to educate the people of the United States."

The writer has had many experiences somewhat akin to those of Mr. Anderson. The information sometimes asked about the South would indicate that a great many people in this country have an idea that the South is full of barbarians, that it is a land of such intense heat that it is difficult for a man from the West or North to live there, that it is full of malaria and all other ills to which flesh is heir, and that the man who goes South to live, or even on a visit, is in very considerable danger.

Sometime ago a prominent New York banker having large financial interests in the South was urged by his wife not to visit one of the mountain cities of Alabama in which he had heavy investments, because of her fear of fevers or other sicknesses. The town in which he had investments is notably healthy. Its summer climate is almost as ideal as that of the mountains of North Carolina; and yet an intelligent New York woman who had traveled widely and who knew that her husband was interested in this Alabama town, was unwilling to see him make a trip there for fear of fever.

This is not an isolated case; it is what one may find almost any day if he mingles much with people of the North and West and happens to discuss the South.

Mr. Anderson in the course of his letter said:

"I get fresh information almost every day that the people of the North and West know very little of the South and its people. Just this morning we received a letter from a large concern in Detroit which plainly indicates the surprise of the writer that we are, to a certain extent civilized.

"Our country not only needs manufacturing enterprises, but we need good thrifty white people to settle on our farms. How can we get them? I feel sure that there are thousands of good white people in the North and West who would move to this section if they knew anything about our advantages.

"How can we get this information to them? That is the

question. I have often thought that if we could raise a fund for advertising purposes that we could attract good people. Why could we not advertise in some of the Northern and Western farm papers that go directly to the farmers? I have advocated this for some time, and I would like to have your opinion."

The opinion of the MANUFACTURERS RECORD which Mr. Anderson requests is the same opinion which we have been expressing regularly for the last forty years, and that is that the South must make itself known persistently, ceaselessly, tirelessly, energetically, in every way possible, and must keep on doing it year after year. It must spend money freely. Every business concern in the South should, for instance, carry on its letterhead or on its envelope a few striking facts about its own community or about the South in general, changing this from time to time. Every letter which goes out of the South should carry some little printed slip of facts about the South, its healthfulness and its attractiveness, its progress and its opportunities for business. Every railroad and every business concern in this section should energetically spend money, and spend it freely and broadly in a publicity campaign, never wearying in well doing, and never growing discouraged because of failure to get immediate results.

California has been busy since 1849 in making its advantages known. Its progress has indeed been wonderful. It is known throughout the world for its resources and its rapidity of growth. The wealth which has been made in California and the wealth which has been carried there for investment are almost staggering in amount. It would seem to many thoughtless people that California would no longer feel the necessity of advertising, and that it could take the ground that the accumulated power of the advertising effect of the last 75 years would make further advertising unnecessary. But instead of lessening its publicity campaign, California keeps on increasing it. It spends money with greater freedom than ever. Its railroads and its business people and its land owners pour their millions into publicity until every man, woman and child in the East or West has ever before him a longing desire some day to visit California. Contrast this with the little that the South has done in real publicity, and one can gain an idea of the limitless field for exploitation of the South's resources.

Some years ago a patent medicine owned in Baltimore was advertised to the extent of \$500,000 a year. Its advertising managers were among the shrewdest which this country has ever produced. The demand for this medicine was world-wide, and those who owned it were making fortunes out of it. But the chief owner died and the head of a big wholesale dry goods house was elected president. Not having been accustomed to advertising dry goods, and looking with envious eyes upon the half million dollars annually spent for advertising, he decided that they could save that half million dollars and that the momentum of the advertising that had been done would keep up the business. Within about two years, certainly in less than three years, the company was in bankruptcy, its business was sold out for little or nothing, and today no man ever hears the name of that oil for rheumatism which at that time was one of the most noted remedies in the world. That lesson needs to be learned by the South in its advertising campaign, and by everybody else.

You live but once, so make your best of life.—Euripides.

Do not refuse the employment which the hour brings you for one more ambitious.—Emerson.

IMMIGRATION OF ALIEN RACES AS DESTRUCTIVE TO OUR COUNTRY AS WOULD BE THE WELCOMING OF IMMORAL CHARACTERS INTO A PRIVATE HOME FOR TEMPORARY PROFIT.

THE Civic Development Club of the United States Chamber of Commerce, at a meeting held in New York recently, heard some very clear and positive statements in regard to immigration from Hon. Albert Johnson, chairman of the Committee on Immigration and Naturalization of the House of Representatives. In the course of an address on immigration Mr. Johnson said:

"In spite of strenuous appeals from those who feel that the United States cannot develop its own common labor, I can assure you that the President has not changed his views. He wants prosperity to hit on all six cylinders, but he does not want prosperity to go tearing down the road at 90 miles an hour. Increase in wages is an important part of prosperity. A shortage of labor is not necessarily a shortage of laborers. If there is a corner in labor of certain kinds that corner cannot be broken by the sudden abandonment of the restriction law, or by the pouring in of the hordes from Europe.

"It took forty years to find a President who would sign an immigration restriction act. That President was Harding. He did it for the future of the country. Wholesale migrations of peoples to the United States are ended for all time. We are no longer an asylum. Everybody now advocates some form of restriction. Our committee, I think, wants two per cent on the 1890 census, and is willing to provide one per cent additional to be used by the fireside relatives of those now here. That means three per cent on the 1890 census basis. If Japanese immigration is put on the 1890 census basis, that problem may be happily solved. There were only 2000 Japanese here in 1890."

Despite all the efforts that are being made by some employers to change our laws in order to permit a larger immigration, the MANUFACTURERS RECORD is unalterably opposed to lessening the restrictions now placed upon immigration. Far better would it be for this country to develop more slowly than to rush forward at pell-mell speed to its own destruction, by flooding the land with more aliens than we can possibly absorb and assimilate.

A man who would invite into his home people of known immorality, whose lives were entirely contrary to those of his own children, in order that he might get through with an extra rush of work, making these incomers a part of his family life, to sit at his table, to mingle with his own children and openly to seek to break down the moral standards of his family, would be held up to the scorn of every honest man. But he would not deserve criticism to a greater extent than would this nation deserve it if it did exactly the same thing on a larger scale, merely because for the time being it may need a few more laborers than are available.

It is humanly impossible to take an element from Southern Europe which for a thousand years has been bred as alien in race, in thought, in morality and in a sense of liberty to everything for which America stands and expect to Americanize these people to our good as well as to their own. It cannot be done. Man has never developed a melting pot of sufficient power to achieve this.

The value of this country to the world must be maintained by upholding the civilization which we now have; by uplifting the flag of human liberty and of civilization and of high wages in order that the whole world may seek to imitate our example. The good people of the world need to remain in their own countries in order to build them up and save them from the destruction of the evil influences that are at work; and the bad people we do not want.

At the close of the Civil War two Confederate soldiers called on Gen. Robert E. Lee and told him that they were going into some other country, probably to Brazil, with a view to bettering their conditions. They said to General Lee: "We have followed you through four years of war and now that the South has been defeated we are going to emigrate and start afresh somewhere else." General Lee, whose immortal declaration "Duty is the noblest word in the English language" should be our motto, said:

"I strongly advise you to remain at home and take part in rebuilding your country. The South will need you henceforth to a greater extent than it ever needed you during the war. It has been defeated, it is in poverty, and it needs the active work of every lover of his land."

Every country in Europe needs all of its good people in order to rebuild its fortunes, and every country will do its utmost to keep at home its best people. But all of them will do their best to encourage the emigration of the inefficient, the radicals, the diseased and those who are weak mentally and physically. We can no more open our doors to the incoming of these classes from all parts of the world than the individual man can welcome into his family life the immoral and the profligate and the degenerate merely for the purpose for the time being of getting a little more work out of them than he can out of the people already employed by him. The destruction of his family could never be justified by the little increase in material prosperity which he might have attained through the incoming of these degenerates.

The preservation of American liberty, of the American Government as a great torch to light the world to the higher paths of civilization, is our supreme task, and in order to accomplish this, not only for our own safety but for the good of the world, we must bar out any large influx of foreigners. It is questionable whether at the present time we could even use any large increase of the laboring classes from England, for the English laboring people have become almost as radical in some respects as the wildest radicals in any part of this country. We do not want to add to the number of radical laboring people, for we have our hands full to control and guide those now in this country, and for this reason any large influx from the mother country, should be studied with extreme care.

THE "CLOSED SHOP" UN-AMERICAN AND DANGEROUS.

IN referring to the danger of the closed shop and the check-off system under which the United Mine Workers carry on their campaign, Mr. John L. Boyd, president of the Tennessee & Southeastern Coal Co., of Knoxville, writes as follows:

"I am pleased with your reference to 'The Menace of Radical Labor Unionism,' that appears on the front cover page of your worthy edition of May 17.

"It is appropriate and timely, and should, and no doubt will, appeal to the business interests of our country as a warning of impending disturbances—even eventual disaster, if the evil intention is not effectively restrained.

"The power of un-American unionism, supported by political demagogues, many of whom will not hesitate to sacrifice country for votes, is indeed a growing omen of trouble ahead, not only for industrial owners, but the menace extends to industrial workers, who, under the influence of unscrupulous labor leaders, crazed with their vision of power, become as chattels for bargaining with politicians for enactment of iniquitous and direful measures.

"Under the system of 'Closed Shop,' a principle that the United Mine Workers is committed to enslave the nation with, not only would the commerce of our country become

subordinate to its dictation, but the constitutional liberties of the workers—their right to work and live would be subject to the whims of their leaders.

"The 'check-off' system employed is a powerful weapon for destruction, and its members dare not refuse to respond to demands for such a portion of their earnings as is called for, even though it is known that it will be used for unlawful purposes, thus forcing them to become unwilling supporters in defying our laws.

"I am impressed with the belief that a large majority of the native born American workers especially, are restless under the domination and the surrender of their liberties, and would welcome the help of the public generally to get rid of the yoke.

"Even the most radical of the labor leaders recognize the power and the weight of public sentiment, and it is to be hoped that the industrial publications, as well as the press generally, will awake to the need of their best efforts to help eliminate the un-American principle of the 'Closed Shop.'

"When it is considered that the estimated membership of all unions, conservative unions as well as radical unions, is substantially 4,000,000, and which includes a large number of undesirable foreigners connected with the radical unions, while the total population of the United States is now approximately 110,000,000, there should be no hesitancy on the part of the press in vigorously declaring for American principles, which includes the 'Open Shop.'

The South and the Negro.

[From Augusta (Ga.) Chronicle]

The Chronicle has received from Richard H. Edmonds, Editor of the Baltimore MANUFACTURERS RECORD, a clear-cut discussion of the subject of migration from the South to the North. We regard this discussion, by this gentleman, as of the highest importance, and submit the letter with confidence that it will command the deepest interest and consideration:

Letter from Richard H. Edmonds.

Editor Chronicle:

Sir:—In a recent issue of the Chronicle there was an article by Mr. N. L. Willet entitled "The Negro, South and North," in which he says:

"There is a Baltimore journal that reads a lecture to the South as to the negro wages and conditions and invites the negro to Baltimore, citing the fact of Baltimore negro schools, negro churches and negro real estate owners. As a matter of fact, there are more well-to-do negroes and comparatively wealthy here in Augusta and more comfortable homes per capita owned by them than can be found in any northern city in the country."

Now, my friend, Mr. Willet, instead of saying a "Baltimore journal" might just as well have said the MANUFACTURERS RECORD and instead of saying that we were trying to invite the negro to Baltimore, he might have stated the exact facts. We were not inviting the negro to Baltimore. We were trying to show that the South must meet the conditions which exist in Baltimore and elsewhere for the comfortable housing of negroes, if it is going to keep the negroes in the South. Baltimore has over 100,000 negroes but there isn't a negro house in this whole city that hasn't a bathroom, for there is a law in Baltimore in operation for twenty or twenty-five years or more which forbids the building of any dwelling in the city, however humble it may be, without a bathroom and sanitary facilities. In mentioning this fact and citing as one indication of how Baltimore is seeking to educate the negro here, that it is building a negro high school at a cost of \$1,250,000 I was simply trying to indicate some of the ways which the South must carry on its campaign to retain the better class of its negroes.

There are a great many negroes in the South whose leaving would be for the good of the South, but many of those who are leaving are among the class whose leaving is a direct loss to the South. I have never been much disturbed by the movement of negro population from the South to the North and West. It has some temporary hardships but in the long run it will be better for the South and for other sections. It will shift the negro problem, which has heretofore been purely a Southern problem, and make it a national problem. It will show to the people of New England, for instance, who have often berated the South for negro illiteracy, the problem which the South has faced and heroically carried. The West will learn much on the same subject, and therefore instead of this being purely a sectional problem, as we have had in the past, it will become national.

To some extent the negro will be disillusioned as he seeks to make a living in the North and West. He will find in many cases that he hasn't the same degree of sympathy of the better class of people that he had in the South. He will probably find the struggle in the end, in times of depression, a little harder on him than he had to endure in the South, but many negroes will succeed in the North and West, just as they are

now doing. The thought of the better homes, such as those for instance which exist in Baltimore, for them will be helpful and will stimulate larger desires on the part of the whole negro race.

I was talking yesterday with one of the really great young-old men or old-young men of the country, Henry M. Leland of Detroit, eighty-one years young, full of vitality and vigor and enthusiasm and love of work. He told me of an experience which he had once, when many years ago he established a foundry in Detroit. After it had been running a few weeks, one of his best men was fined \$50 by his labor union because he had worked a little longer than the union allowed and made about 50 cents one day over the union rate of wages, which at that time, as I remember the figure, was \$2 a day. The union had a rule that no man should be allowed to earn over that amount. Mr. Leland found that the secretary and president of that labor union were in his employ. He had them come up to his office and he pointed out to them the absurdity of limiting their amount of income. He said, "You cannot possibly take care of your family with reasonable comfort and save any money on \$2 a day; I will gladly pay you whatever you earn if you will take off your maximum limit." His offer impressed them and at the next meeting of the union they agreed to raise the limit so that a man could earn \$2.50 a day and they came back thinking that they had won a victory. Again Mr. Leland pointed out the folly of limiting themselves to small wages and after two or three trips back and forth, these men succeeded in having their labor organization cut out entirely the limit of pay and earned whatever they could. Mr. Leland said to them, "If you earn \$5 a day more, it will give me great pleasure to pay it; you will be better off; you probably won't save much more because when you get \$5 a day instead of \$2, you will want to live better, you will buy a carpet or a dress for your wife or something else, but you will be living with more comforts and attractions in your home and the spending of the \$5 a day will make more general prosperity than will be the spending of the \$2 a day to which you have been limiting yourselves."

That argument of Mr. Leland's applies with equal force to the day laborer, whether he be white or black, and to every other man engaged in making a living. If he gets a little higher pay or makes a little more money, he surrounds himself and his family with a few more comforts, provides a little better for his family, develops himself with his family to a little higher standard and in doing so helps to add to the prosperity of the entire community.

The whole South would be benefited by developing, on the part of the negroes, a larger desire for more home comforts and conveniences, for once the desire is created and the opportunity is opened, people will work harder in order to achieve these things and that means more work, more production, more money spent, more happiness and more prosperity.

No man dare say that the rate of wages in the South on the farms for white and black men alike has not been too low. This has been a powerful weight pressing down wages and salaries of every class of people throughout the South. The white man's burden in the South has been the burden of low wages, and low salaries, due to carrying the burden of low pay for negroes. Every intelligent man knows that much of the prosperity of the Pacific Coast is due to the high rate of wages paid and the high salaries of clerks, teachers and preachers, and so it will be in the South; when we lift the rate of pay in the South, we will lift the comforts and standards

of living, we will lift burdens from many hard pressed teachers and preachers and salaried men and women; we will increase the circulation of money and all to the prosperity of everybody.

Some say it cannot be done by reason of the low prices which have prevailed for cotton. Then let us cut our cotton crop to the quick until cotton brings a price which will enable us to pay good wages. Let us create on the part of the negro and the poorer class of white people a desire for better homes with modern, sanitary conditions and we will increase the healthiness of all classes and the prosperity of everybody.

If out of the negro movement and the discussion that this has brought about, there shall come a broadening vision of the South, in favor of higher wages and higher salaries, the loss of the comparatively few negroes, who are going North and West will prove a very great blessing to the whole South.

But, do not let your good writer, Mr. Willet, say that I am trying to read a lecture to the South as to negro wages and conditions. Having been writing on Southern questions for something over forty years. I feel that I can at least be permitted to continue to express my opinions on any and every phase of every question that bears on the progress and prosperity of the South.

Very truly yours,

RICHARD H. EDMONDS.

Baltimore, Md., May 22.

The Land of Opportunity as Well as the Land of the Sky.

Dr. S. WESTRAY BATTLE, Asheville, N. C.

North Carolina today is attracting more attention than any other state. In traveling over the country one is struck by the talk of North Carolina, its great opportunities and its wonderful progress in almost every line of endeavor; and yet there is one corner of this Beehive state which in the opinion of the writer lacks the notice it deserves. It is progressing, to be sure, but its marvelous potentialities yet remain untouched for agriculture, mining, lumbering and manufacturing.

The reference is to Cherokee County and particularly to the area in and around Murphy. Murphy with its even climate, its railroads, the Louisville & Nashville and the Southern, its enormous hydro-electric power and its high grade iron deposits of unlimited quantity, the latter being uncovered and under partial development. This iron industry is already established and is daily assuming larger proportions, engaging more capital and calling for more labor. An electric furnace to take the ore from the mine to the finished product is being discussed and investigated.

Work can be carried on here throughout the entire year. Murphy is beckoning to the cotton growers and mill men of our own state and to Georgia and Tennessee. The town has a standing invitation to the mill industries of New England to come and see the advantages offered.

Murphy offers an unexcelled summer and winter resort, equal to the Asheville plateau which is second to none as an all year round place of residence, cool in summer on account of its altitude and mild in winter by reason of its Southern latitude.

No more wonderful scenery is to be found east of the Rocky Mountains. Here in the very heart of the Appalachians we have the most favorable climatic conditions and business opportunities combined.

A broad, hard-surfaced highway is already half completed from Asheville towards Murphy and further west and south. It is a scenic highway of beauty unsurpassed in all the mountainous sections of the country, along the Nantahala and Tuckaseegee, over the top of the mountains, then on to meet the Valley, the Hiwassee and the Nutley rivers. Murphy sleeps at the conference of and between the last named streams which unite within the very limits of the city.

It is a thriving town of 2000 inhabitants with an altitude of 1000 feet and surrounded by lands of promise under the

surface of which lie vast stores of high-grade brown iron ore, marble and talc. The latter is of the finest and whitest quality to be found on this continent and is equalled only by that of Italy, whence comes the highest grade of that mineral in the world. Murphy sleeps, but dawn is near and opportunity is hammering at her door.

Thomasville Citrangequat New Citrus Fruit.

Atlanta, Ga., May 31—[Special.]—The citrus fruit industry is creeping further north each year, and indications are that in a short time it will extend over a much larger section of the South than the Gulf coast area.

The latest development in the industry is the Thomasville citrangequat. As the name indicates, it is a cross between the citrange and the kumquat, and was originated at Thomasville, Ga.

A number of years ago the Chinese trifoliate orange was brought into the section and crossed with the sweet orange to form the citrange. This, in turn, was crossed with the kumquat, and the result is a new citrus fruit, one-half kumquat and one-quarter each sweet and trifoliate orange, which is said to have all of the hardness of the trifoliate stock combined with the juice and flavor of the sweet orange—a truly valuable combination.

The first advantage possessed by the citrangequat is its hardness. It will grow any place where ordinary trifoliate stock will grow, extending the range of a sweet orange over a much wider range of territory. But in addition, the new fruit is said to be remarkably resistant to diseases of all sorts.

The citrangequat will be used as a source of marmalade and orange-juice beverages, making a drink that is high in favor in the section where the fruit has been tried out.

At present there are only a few trees from which cuttings can be obtained—largely the property of P. J. Hjort, Thomasville nurseryman—but it is hoped to extend the new fruit through propagation so that it may be extensively grown around Thomasville and other sections suited to its production.

At any rate, the citrangequat marks a decided advance along the line of citrus fruit propagation, and is a cheerful indication that research work is still being conducted among farmers and nurserymen, and new and better fruits produced.

Oil from Tobacco Seed.

[From the European Commercial, Vienna.]

A highly interesting and important item of news comes from our correspondent at Sofia of the latest researches at the Agricultural Institute in the Bulgarian capital; it has been positively ascertained that a very fine quality of edible oil may be extracted from tobacco seeds. Tobacco seed oil is much like cotton seed or opium seed oil. From an ordinary bunch of tobacco seed cluster could be obtained about 10 grammes of pure seeds. In a tobacco-planted area of one decare there are 10,000 plants, with an estimated yield of 100 kg. of tobacco seeds, from which may be extracted from 15 to 18 kg. of pure edible oil.

An approximate estimate of the whole tobacco-grown area in Bulgaria gives no less than 150,000 decare, yielding about 35,000,000 kg. of tobacco seeds. Calculated at 15% the oil yield would be 5,250,000 kg., besides the residuals upon which cattle could be fed. The total value of these products is estimated, at the present rate of exchange, at not less than 175,000,000 levas. Experiments are being conducted by some of the Professors of the University of Sofia and it is expected that a complete record of their discoveries regarding the manufacture of this new product will be issued.

The Twelve Hour Labor Day in Steel Works.

SOME UNDESERVED CRITICISMS BASED ON LACK OF KNOWLEDGE, DUE TO FAILURE OF STEEL INTERESTS TO UNDERSTAND PUBLIC SENTIMENT.

THREE outstanding features of the annual meeting of the American Iron and Steel Institute two weeks ago were:

First—Judge Gary's enthusiastic commendation of the Bible as the only sure foundation for individual and national righteousness.

Second—Judge Gary's sudden temporary illness which compelled him to retire for a few minutes to rest.

Third—The report of the committee on the 12-hour day in steel works, which made an adverse report as to the wisdom and feasibility of this change at the present time.

Unfortunately this labor report was not wisely worded, and in that respect was in keeping with many other reports which failed to understand the psychology of the public mind. The Iron and Steel Institute has always needed a teacher of psychology who could present facts in such a way as to help rather than harm its work.

If that report had started out with the statement that within the last ten years the steel people had voluntarily steadily reduced the number of men working twelve hours a day until only 20 to 25 per cent of the employees now work that long as compared with 75 per cent ten years ago, and had followed this with many other equally as important facts, the public would have accepted the report with appreciation of what has been done, but these striking facts were omitted from the press dispatches and the report as published broadcast throughout the country was to the effect that the American Iron and Steel Institute Committee, of which Judge Gary was chairman, had made an adverse report on President Harding's request that the steel trade abandon a 12-hour labor day.

Probably ninety-nine per cent of the general public are under the delusion that all steel laborers work 12 hours a day, that their labor is continuous and utterly exhausting, and that the steel manufacturers are heartless tyrants without any love of humanity in their souls. The public does not know that 12 hours is not a period of continuous work and that there are many resting spells in that time. It does not know any of the conditions which prevail and which are so clearly explained in some of the discussions of the subject published in the following pages. And in this respect the public is not so much to blame for its views as the iron and steel men are to blame for their failure to keep the public constantly informed as to the betterment work under way, ever since the wretched labor conditions existing in Mr. Carnegie's time and which have been steadily changed for the better. In those days, among steel making competitors and steel buyers and some steel employers it was "every man for himself and the devil take the hindmost." A mighty change has been wrought since then.

This situation is responsible for the almost unprecedented bitterness of many newspaper criticisms, aimed especially at Judge Gary. These critics denounced him as a hypocrite, up-

holding the Bible with one hand and enslaving labor with the other. Some even went so far as to suggest that his sudden illness was a direct blow from the hands of the Almighty for impiously praising the Bible while doing the unchristian act of refusing to grant shorter hours to steel employees. Doubtless every labor agitator, every sensational socialistic minister of the gospel, eager to denounce others, and every sensational paper in the land will keep on denouncing Judge Gary especially and the steel interests generally, and all merely because of a complete failure of the report to present the matter in full in its true light. And the truth will never overtake the lie and the first impression on the public mind will not be obliterated for years to come.

In a personal letter to the MANUFACTURERS RECORD one of the foremost steel men of the country, noted for his welfare work, expressed exactly the same view which we have taken of the mistake made in the wording of the report, putting it even more strongly than we have done.

Every man who knows the steel trade knows how unceasingly Judge Gary and his associates in the Steel Corporation have worked for the welfare of its employees. Every man who knows Judge Gary knows how deeply and sincerely, in the spirit of Him who spake as never man spake, he has sought to advance the material and spiritual welfare of these employees.

The expenditure in eleven years of over \$112,000,000 by the Steel Corporation for welfare work testifies to the devotion of Judge Gary to the cause of humanity. Under his guidance superb hospitals have been built for employees, the one at Birmingham for the company's operatives there having cost \$1,000,000, churches and Christian Associations built, free schools established, visiting nurses employed, playgrounds maintained and kindred work done on an enormous scale. The most sanitary grocery and meat stores we have ever seen, surpassing the highest-priced food stores in big cities, were observed at some of the plants of the company visited by the writer. The meat departments are so completely screened that not a fly could enter and every customer looked through screened partitions when ordering meats. Even the meat cutters were constantly under inspection to see that soiled or bloody aprons were not worn. We have searched in vain in big cities for any meat shop that so thoroughly safeguarded its meats as those of that company, from which its employees could buy their supplies.

This is but typical of the way in which Judge Gary and his associates have carried on year after year their never-ending campaign for the betterment of the living and the housing conditions of their employees. In this work Judge Gary has unquestionably been controlled by the teachings of that Bible whose praises he sung in his annual address, and in his efforts to do unto others as he would have others do unto him.

The welfare work of the Steel Corporation is only typical of what many other steel companies are doing. In proportion

to magnitude of interests many of them probably fully equal the best that the Steel Corporation is doing.

When the celebrated Gary dinners were held in the winter of 1907 following the panic which threatened to break down all prosperity, the one unceasing strain which ran through the after-dinner talks of every speaker was the necessity of trying to sit steady and hold the iron and steel trade firm against the panic in order to protect the laboring man from loss of employment.

The greatly beloved and honored "Uncle Joe Butler" as he is universally known in the steel trade, the life-long friend and companion of McKinley, at one of these dinners in substance said: "We steel men could meet the situation by shutting down our plants instead of running at a loss, but the shutdown would throw employes out of work and our duty to them demands that we keep our plants going, even if we lose money, just as long as possible." That view was reiterated in one form or another not only at that dinner but at every one of these Gary dinners.

At that time the MANUFACTURERS RECORD said that Judge Gary had put into motion forces for the betterment of all business relations between competitors, between sellers and buyers, and between employers and employes which would be of infinite value to all mankind. That prediction has been fulfilled. The results would have been even greater, many times greater indeed, if the steel men of the country had ever had one half the skill of Henry Ford, for instance, in educating and cultivating public sentiment. For their employes the steel men generally have probably done far more than Ford has ever done, but lack of psychological knowledge of how to reach the public, not once only, "but day by day in every way," month after month and year after year, has left the steel interests largely misunderstood and bitterly assailed, while Ford glories in the abounding praise which he receives from every class of people, who think he leads the world in welfare work for his employes.

In the MANUFACTURERS RECORD of May 31 we published a story of what the Alabama Power Company is doing in the way of publicity work to educate the entire country to the one state of Alabama. A letter from that company calls attention to the fact that they have told the story of Alabama in illustrated news form in more than 100 of the most widely circulated publications in the country, and adds:

"We have four motion pictures being shown in every public school in New York City, every Y. M. C. A. in America, and at private meetings and conventions throughout the land. These pictures are also being shown in European countries, from which we hope to secure desirable immigrants to work on our farms and in our factories. Our pictures have been shown to private gatherings by representatives of our company in Chicago and other large financial centers. * * * Millions in all sections of the United States, Canada and Mexico have listened to the story of Alabama as it has been told by representatives of the leading communities of the State."

The last statement refers to the broadcasting of news about Alabama from a high-powered radio station established by this company.

Here is what one company, with only a small fraction of

capital as compared with that of the Steel Corporation, and almost infinitesimally small as compared with the aggregate capital of the steel interests of the United States; is doing in the way of publicity work far exceeding what all the steel interests in the United States are doing. It is telling the story of one State in order to make the public of this entire country, Canada and Mexico included, familiar with the resources of Alabama. But the steel interests of America, with their billions of investment, have never made an intelligent, broad campaign of this kind in any way at all comparable to what the one company in Alabama is doing for that State.

Favorable public sentiment is just as essential to the steel interests as is publicity for the welfare of Alabama. The steel interests of the country, if they were doing as much for their own sake as the Alabama Power Company is doing for Alabama, and thus for its own good, would be spending tens of millions of dollars a year in publicity work to make every man, woman and child in America familiar with the welfare work which the steel interests are carrying on for the good of their people. They would cover the land with the moving picture to an extent a hundred times greater than the Alabama company is doing in its work.

The story of iron and steel and every ramification of the industry, every phase of employment, every fact in regard to the employes, to the homes in which they live, to their opportunities for betterment, should be intelligently presented through moving pictures as a matter of public education essential to the welfare of the country. We cannot safely go on permitting misinformation to breed class hatred. But silence on the part of the great manufacturing interests of the country has permitted millions of lies to be circulated throughout the land endangering our national welfare. Some of these lies have been uttered by men who knew better; the majority of them have probably been uttered by men who did not know the facts and who were only voicing what they had heard from others, or read in the newspapers, and without any adequate rebuttal of the stories.

One of the leading steel men of the country in a letter to the MANUFACTURERS RECORD says: "Not only are the employes of the steel companies better paid than are Ford's, but it is my opinion that they also enjoy better working conditions through the welfare activities of the steel interests. Unfortunately, STEEL has always been an anathema of a certain line of politicians and uplifters."

The reason why steel has been anathema is because of the ignorance of politicians and uplifters; and their ignorance is due to the failure of the steel people to do their duty to themselves and to the country. Years of work will be required to overcome the ill-will against the steel interests created by lack of information on the part of the public; but if the steel men are wise they will recognize that they must double and quadruple their efforts and their expenditures. Indeed, quadrupling is a very small expression of what must be done for their own safety against the storm of public disapproval due to the lack of knowledge. It will not do for the steel men to sit down quietly and say the storm will blow over, or that nothing that we can do will change the aspect, or that we will wait for the public to find out for

itself how steel employes are paid, and how their welfare is looked after. There must be an aggressive, determined effort made by the steel interests of the country to carry that story to the hearts and minds and eyes of the American people, and by the magnitude of the work which they must do now and for years to come atone for their failure to do this work in the past.

Suppose, for instance, in proportion to the need of information by the public and the capital invested, the steel interests were doing as much for public information as the Alabama Power Company is doing for one State, no one could measure the good that would be wrought. In contrast with the work of one company all that the steel people have done is beggarly indeed and infinitesimally small in expenditure. In fact, if the steel men themselves would contrast how little they are doing with how much that one company is doing, and then face the fact that they need to win public favor to a far greater extent even than does the Alabama Power Company need to win it to the State of Alabama, they would be astonished at how far short they have fallen of their duty to themselves and to the country.

The Manufacturers Record is making no argument in behalf of the twelve hour labor day. It believes that the reduction already made from 75 per cent of employes who

formerly worked twelve hours per day, to 20 per cent or 25 per cent as at present, will continue to grow until twelve hour steel labor will become practically unknown. This will come about through the voluntary work of the steel people themselves, through some change of methods, or some new inventions, and despite the opposition of many of these very employes who prefer the twelve hour day. But we do enter a protest against the bitter criticisms aimed at Judge Gary and other steel men whose professions of Christianity are scouted and ridiculed by these critics merely because the critics do not understand the situation.

Because of the bitter criticisms of many papers against the iron and steel people, and Judge Gary especially, the MANUFACTURERS RECORD wired to every member of the committee asking for his reasons for favoring the report. This has brought forth the fullest and clearest discussion of the subject ever published. In studying this question let it be emphasized that many of these iron and steel men are among the most devoted, consecrated Christians of every denomination, Catholic and Protestant alike, in this country, and that a very large proportion of them have come up out of the forge and the foundry and the rolling mill and know from personal experience every detail of the work of all their employes.

One of the Oldest Steel Makers in America, Who Is One of the Noblest Christian Men of America, Broadly Discusses the Whole 12-Hour Steel Labor Problem.

Gulf States Steel Company,

Birmingham, Ala., May 31.

Editor Manufacturers Record:

I acknowledge your telegram of this date asking my views and those of our president, Mr. Moffett, on the question of the 12-hour day, and as to welfare work by this company, and as to the attack made with bitter criticism upon Judge Gary personally.

I cannot easily conceive how or why anyone with common sense and with common information could possibly make an attack upon Judge Gary personally in the premises. I have known him personally for over thirty years and have known during that time his kind and generous disposition. It is a matter of common knowledge throughout the trade that the dividends of his company have been always secondary to the public welfare, and that the subsidiary companies controlled by the United States Steel Corporation have habitually refrained from advancing prices to the detriment of the consuming public, and from reducing wages to obtain cheaper costs until such action has appeared to be absolutely necessary and forced upon the company. On the other hand, as an officer of a company which is strictly competitive, I am constrained to say that it has sometimes appeared as though Judge Gary's company has advanced wages when there was really no necessity for it, and when the course of trade and the difficulty of obtaining sufficient orders would really rather have suggested the propriety of reducing both wages and prices.

It would be quite needless for me, or for anyone else, to undertake in a letter to refer to the welfare work for the benefit of its employes which has been so splendidly accomplished by the Steel Corporation, and others. It is a matter of gratification to all the leading men in the steel trade whom I know that our various companies have been able to do so much along this line—not that we seek to exploit it or to

claim any credit for it. We do such work largely to make our labor happy, contented and healthful, and attention to the conditions of housing, sanitation, ventilation, environment as to gardens and playgrounds, baths and gymnasiums, churches and schools, both for white and for colored labor, obviously promotes contented communities and diminishes the constant turnover of labor, which is profoundly detrimental both to the industries involved and to the nation at large, for all turnovers involve loss of time, expense in moving men and families from one place to another, and loss of efficiency in becoming habituated to new surroundings.

The question of the 12-hour day does not depend, however, either upon the personal attitude of Judge Gary or any other leader in industrial pursuits. It is a question which depends upon natural conditions which cannot be controlled or modified by human effort; by which I mean continuous processes. These, such as blast furnaces and open hearth furnaces, must have constant attention, night and day, week in and week out, running for campaigns either of weeks, or months, or years, according to the character of the plant and the process, and only at such times can there be any entire stoppage of work. It is necessary, therefore, to divide the 24-hours' supervision and attendance either into two, three or four shifts. If each man worked two 6-hour shifts, with a 6-hour interval, he would work the same number of hours as at present, but would spend double the time in going to his work and returning to his home, which would be, according to the men's own expression, much to their disadvantage, and they would not consider it favorably. If the alternative is taken of an 8-hour day, then if the same number of men only are available as at present, they would be required to work alternate shifts which would bring them 8-hours work in one 24-hours and 16-hours the second 24-hours, and so on. This, obviously, would be of no advantage to the men. Not only would there be a greater amount of time lost in going and returning to and from work under the 8-hour plan, but in addition the alternate 16-hour day would be more exhausting than the uniform 12-hour day, and this would not be satisfactory. If the hours of labor in each 24 should be limited to eight for each workman, there would be required an increase of 50 per cent

on the present number of men employed in these positions involving the 12-hour turns. After examination of the subject, the highly representative committee appointed from the leaders in the Iron and Steel Institute have reported that 60,000 additional men would be required. These men are skilled or semi-skilled. Men who are farm laborers, waiters, tram conductors, elevator runners, clerks, shopkeepers, teamsters, etc., cannot go to an open hearth furnace or a blast furnace and perform the duties required, which involve a co-ordination of strength, skill and experience. Such additional men simply are not to be had today in the United States. At this moment of writing there are mills reported partially shut down for lack of labor. If the 8-hour day were at this moment to be put in force throughout the trade, it would be necessary to close down one-third of the capacity of the plants which are running on the 12-hour basis so that the present available skilled and semi-skilled labor would be adequate on an 8-hour basis for the remainder. This at a stroke would create such a scarcity of materials as to create a buyers' panic and disorganize all the consumers of steel to a degree that cannot be expressed. It would preclude the maintenance at present of even an ordinary scale of locomotive and car production and repair, of the supply of rails and other track materials, of steel for shipbuilding industries, for the automobile business, structural steel for building, and hundreds of thousands of men would be put on short time or deprived of occupation throughout the country because of the inability of their employers to obtain the necessary supplies of steel.

The men themselves who are working on these turns do not desire to make the change unless in the first place they could obtain the same remuneration for the 8-hours' work as they are now obtaining for the 12-hours. This, the committee has reported, would add not less than 15 per cent to the cost of the steel produced. My own opinion is that the figure is understated and that the cost would be considerably greater, especially to the smaller plants where the production would, if so reduced, be inadequate to carry the overhead expenses of management, interest and taxation.

The remuneration paid in making steel is quite extensively based upon the maintenance of an upstanding wage, together with a bonus based upon tonnage production and also quality. Under the ordinary method of making open hearth steel, the production from pig and scrap requires on the average 12 hours to obtain the necessary reactions. Obviously, if a crew who had handled a heat and brought it two-thirds towards completion had then to turn it over to another, and the heat proved unsatisfactory and was not within specification and had to be scrapped and melted over again, there would be no bonus payable, and thus cause for recrimination and quarrelling would arise as between the outgoing and the incoming crew of men working on that particular heat as to whose fault it was. This would be very undesirable, as satisfactory results are only obtained in steel-making, as in baseball, by good teamwork.

Lastly, it must be understood by the public that the labor is not continuous in these 12-hour shifts on blast furnaces and open hearth furnaces. On the contrary, there is not, on the average, more than 6-hours work for any of the men so engaged—it is a question of sometimes as much as two or three hours' work at a time, sometimes only 15 or 20 minutes at a time, and then a rest, where a man can sit down, smoke a pipe, read a newspaper or anything else that he has with him, or in many cases even take a doze while his comrades watch the condition of the heat. There is no comparison as to physical exhaustion between this and the shorter turns worked in processes or under conditions where a man is working all the time without stopping, and this is the condition in the vast majority of industries. There is no comparison at all in the physical demands upon a man who watches the processes of manufacturing, guiding and direct-

ing and assisting them from time to time, as against the policeman or watchman upon his beat, the weaver at his loom, the engineer or stoker on the locomotive, or even the sturdy, patient plodder behind a plow in the fields. The men who are thus engaged are satisfied; they are not complaining; they would complain very bitterly if they were required to work shorter time and earn less money. The public would complain if they were reduced at the expense of bringing in another crew, (that does not now exist in this country,) involving large increases in selling prices, and the clamor for the abolition of the turn arises from those who are not personally acquainted with the conditions and mistakenly suppose that it means, as it does not, continuous work.

JAS. BOWRON, Chairman.

[Col. Bowron, now verging on to fourscore and ten, full of youth and vitality, is a devoted, conscientious Christian, whose life is largely given to good deeds. No one who knows him could ever for one moment question his desire to serve mankind to the utmost limit of his power.—Editor MANUFACTURERS RECORD.]

"If Advancement in Human Affairs Cannot Be Made With Such Men as Judge Gary Then Progress Is Impossible."

New York, June 1.

Editor Manufacturers Record:

Our Vice-President, Mr. Charles R. Hook, has made written reply to various inquiries concerning the report of the Steel Committee, covering the 12 hour day. I am wiring Mr. Hook to send you a copy. Many employers in the iron and steel business have been striving earnestly for many years to find ways and means to introduce an eight hour day, but as far as I am informed, it has only been accomplished in a very few situations where very extraordinary conditions exist. The 12 hour day is so traditional in the steel business that both the men employed and the processes of manufacture have, so to speak, become set. Even if the men needed were available, it would be a Herculean task, requiring years of patient effort, to apply it to the entire industry, except at prohibitive costs.

The economic needs of the nation and of the times demand that lowest possible costs be obtained. The entire industry is fighting costs this year as never before, and everybody understands the general labor situation in all lines.

The Steel Corporation has unquestionably spent more time, effort and money than any other institution in the world in an earnest effort to better working conditions, whenever and wherever possible. Their own workers can best testify to that. Considering the number of men they employ, they have undoubtedly done more to better working conditions than anyone else.

Judge Gary's policy as to treatment of workers and covering fair dealing with everyone is so outstanding it hardly needs comment. His policies and his work covering the last twenty years have been a great national asset, which have benefitted every citizen of the nation, no matter what his vocation. The hardest competitors of his company concede these things, and they cannot be disputed by any fair-minded person who will take the trouble to secure the facts. Knowing Judge Gary's record as I do and what the corporation is constantly doing for its men, it is my feeling that whatever can be done at any time in the interest of the worker, consistent with fairness to the company itself and in keeping with economic soundness will be done.

If advancement in human affairs cannot be made with such men as Judge Gary at the head of our large institutions, then progress is not possible.

GEO. M. VERITY, President,
American Rolling Mill Co.

A Comprehensive Review of the Whole Question of Labor in Steel Mills.

Lukens Steel Company,

Coatesville, Pa., June 1.

Editor Manufacturers Record:

Our mills have been operating on the 12 hour shift for over one hundred years, and we believe our men would seriously object if we were to change this, unless we materially increased their wages, which would be impossible. Furthermore, we could not get men to do the work necessary on an 8 hour shift. Our day laborers work 10 hours. It is much easier on the turn men working 12 hours than on the usual laboring basis, as our men have periods of rest and waiting; it is not continuous labor, and we do not run on Sundays.

From March 1, to June 1, 1919, we operated the works with three 8 hour shifts, the result being very unsatisfactory in the efficiency of the plant, in the disturbed spirit of the men, disturbed condition and dissatisfaction in the homes and in the unsatisfactory earnings, so that after this three months' trial we returned to the former method of working.

The Chairman of the Board of "Employees Representation," elected by secret ballot according to our system, stated that while he had been at the first in favor of the 8 hour day, he found he was mistaken and felt convinced that we had done just the right thing in going back to our former method of operation, as above.

If the above does not cover all you desire, you can select from the accompanying papers by our Mr. Charles L. Huston, vice-president and works manager, addressed to me nearly a year ago in order that I could furnish Judge Gary the information he desired.

A. F. HUSTON, President.

The very comprehensive report of Mr. Charles L. Huston, vice-president and works manager, is as follows:

Coatesville, Pa., July 1, 1922.

Mr. A. F. Huston, President,

Lukens Steel Co.

Dear Sir:

In response to your request for a statement of my opinion, as works manager, of the feasibility of abandonment of the 12 hour shift, as per request of Mr. E. H. Gary, Chairman of the Committee of the American Iron and Steel Institute, I give below my conclusions after a very careful study of the matter, viz.:

To operate the plant without loss of time it would seem necessary to work either the 12 hour shift or three 8 hour shifts, 12 hours representing 11½ hours actual work because of the half hour intermission taken for the mid-turn meal, and the 8 hour shift representing only 7½ hours actual working time, because the men would need to have the half hour intermission just the same.

Owing to the introduction of labor saving machinery, our men are much less fatigued when the day's work is done than they formerly were, when hand methods of rolling were more generally used.

Added to this, we believe that we virtually accomplish the real vital principles of the purpose in view, because we never operate on Sundays, our mills closing down early Saturday afternoon and not resuming operations again until 6 a. m. Monday; the open hearth furnaces closing down some time Saturday, according to the working conditions of each individual furnace, and not starting operations again until 6 p. m. Sunday, so that the entire plant averages from 24 to 42 hours cessation of operations over the Sunday.

Our men are noteworthy for their membership in the churches and attendance upon the regular services, and appreciate Saturday afternoon off more than the few odd hours

coming at irregular times, which they had off each day during the period in 1919, when we were operating on 8 hour shift basis.

From March 1 to June 1, 1919, we operated the works with three 8 hour shifts, the result being very unsatisfactory in the efficiency of the plant, in the disturbed spirit of the men, disturbed condition and dissatisfaction in the homes, and in the unsatisfactory earnings, so that after this three months' trial we returned to the former method of working, the chairman of the Board of Employees Representation, elected by secret ballot, according to our system, stating to the writer personally, toward the end of that summer, that while he had been at the first in favor of the 8 hour day, he found out that he was mistaken and felt convinced that we had done just the right thing in going back to our former method of operation, viz., 10 hours for day workers and the 12 hour shift for day and night workers, except mechanical shops, where our men work five nights of 12 hours and six days of ten hours, a shortening up of the noon-time during the week enabling them to stop off at 4.30 p. m. Saturday.

On account of the high cost of living, brought about very largely by reason of the introduction of the 8 hour day with 10 hours pay in other industries, especially the high cost of rents, brought about largely by the same program in the building trades, it would be impossible for the men to get along with a satisfactory living on 8 hours' pay without an advance in the rates, which our branch of the industry would be unable to grant, as we still are and have been operating at a loss now for nearly two years; the men themselves also having been employed only part time, have gotten behind in their own finances and need all the earnings they can get to catch up again, now that business is showing signs of approaching normal volume.

In open hearth steel work, particularly where cold stock is used, as in our practice, the usual operation of the furnace results in an average of one tapping every 12 hours or thereabouts. This makes about an even distribution of furnace tappings between two 12 hour shifts; whereas where three 8 hour shifts have been tried it has been found that the spirit of evasion, cultivated by the short hour idea, has caused certain shifts, who were more adroit than the others, to push the tapping off to the next shift, in order to escape that particularly hot part of the work, with the result that sometimes one shift, and probably the most capable one, has managed for long periods to tap no heats at all.

It has been our experience, as well as of others, that when you give play to the desire of men to get something for nothing, or get more pay than they deserve for the effort put forth, that the unworthy, covetous side of their nature is developed, and instead of being more satisfied they become more unreasonable and impossible to satisfy, and cordial relationship and co-operation becomes much more difficult to obtain.

It has been my firm conviction and personal observation that, as the 8 hour day with 10 hours pay plan has been gradually introduced, at first in Government shops, where there was no competition and no adequate means of measuring cost of operations with commercial activities, then its adoption in a few industries where labor played a lesser part in cost, then spreading to building trades and other industries, whose products enter into general consumption, and lately, during the war, much more widely adopted, especially in railroad operation, where the products enter into general consumption and therefore affect living costs, these costs have been largely increased, as it is impossible to have a general lowering of the per capita production of the country without lowering the purchasing power of a day's labor, or conversely increasing the cost of living, with the inevitable further result that those whose earning power, or purchasing power is greater get their full share, while those less fortunate have

to get along with less or go without. This is particularly notable in the assembling of building materials and general cost of building, so that the poor man cannot build a house or rent a house at rates that he can afford to pay.

A decided shortage of houses exists in our community and neighborhood, so many people having given up farming and other country occupations and moved into town to get the advantages of schooling, social life and business opportunities, that it would be impossible to find housing for the number of additional men that would be required to operate on the 8 hour basis, present costs of building, as above stated, being so high that there is no feasible way of supplying the houses.

Being in a semi-rural community, surrounded by large farming territory, the farm work conditions and rolling mill conditions very much influence each other as to hours, conditions of work, etc., and it was noticeable by our employment department, during the recent severe depression, in its efforts to secure employment outside for our own idle men, that our men did not want to work on the farm, saying that conditions were much harder there than in the mills. "On the farm you have to work all the time and in all weathers, while in the mill you are protected from the elements and have frequent times when you can sit down and rest."

If the steel industry, and other industries generally which heretofore have kept clear of it, are forced into the 8 hour day the effect is going to be still more serious, and the effort to meet the demand for a living wage on the part of producing concerns, and at the same time maintain a living profit, is going to be exceedingly difficult, driving out of competition all except the most favored, and thus adding to the shortage of goods and elimination of competition, not only increasing the cost of production and the cost of living directly by these means, but giving an opportunity for profiteers and speculators to take advantage of this shortage and artificially boost the selling prices.

It has been my opinion that the report of the United Engineering Societies, under Hon. Herbert Hoover's leadership, charging management with greater inefficiency than they have charged labor, is not justly taken, for the reason that management has been making honest and continuous efforts to reduce waste, and inefficiency and the cost of producing, and is still moving in that direction, but organized labor has been deliberately, and with great care and effort, purposely reducing efficiency and thwarting the efforts of management in that direction, and I notice with interest, in this connection, that the report of Ernest Greenwood, American correspondent of the International Labor Office, Washington, in the investigation of that department as to the results of foreign adoption of the 8 hour day, especially of the three shift plan, shows that success in its program has encouraged and cultivated this same spirit of deliberate inefficiency and wastefulness, and consequent dissatisfaction on the part of the workers.

The respectable and self-respecting American working man, who is really worthy of consideration, and forms the backbone of our industries, wants to have the sense of having honestly earned what he gets, as well as of having obtained what he honestly earns.

Since the days of Adam, as is recorded in the Old Book, there seems to be nothing to indicate any change from this program. Man was told, "In the sweat of thy face shalt thou eat bread." Someone has quaintly commented on this, saying that if any man, by special circumstances, manages to avoid this sweating process somebody else will have to sweat double for him. Solomon, in Proverbs, said: "He that laboreth laboreth for himself; for his mouth craveth it of him," and finally Paul, in writing to some who apparently thought that they were free from this law, said: "If any would not work, neither should he eat."

There seems to be an impression amongst a lot of people,

who want a living wage, regardless of whether or not they give an honest work equivalent for it, that the world owes every man a living, ignoring the fact that the living cannot be obtained unless somebody digs it, or works it out of the ground and into suitable shape and place for man's consumption and convenience, and the sooner we get away from these unsound and false ideas, and back to honest recognition of facts as they exist and always have existed, the better it will be for all concerned.

Very truly yours,
CHARLES L. HUSTON,
Vice-President and Works Manager.

Dominant Note of Judge Gary's Life the Welfare of Every Employee.

Sloss-Sheffield Steel & Iron Co.,
Birmingham, Ala., June 1.

Editor Manufacturers Record:

Unfavorable criticism by newspapers of the committee's report on twelve hour labor day and of Judge Gary seems to be both unreasonable and without justification. Evidently such criticism comes from those who either have not read the report in full or having read it are fatally bent on mischief. In my opinion, under present economic conditions, when viewed from the standpoint alone of the purchasing public and the employees (assuming the employees would consent), it would be unwise to abolish the twelve hour day. The report does not purport to be final, and indicates that with plenty of labor it would favor abolishment, provided employees, the purchasing public and industry generally, including the farmers, would approve. The interest of these should come ahead of theorists and sentimentalists. Bitter criticism of Judge Gary is extremely uncalled for. The dominant note in his life and action as head of the Steel Corporation can fairly be stated to be one of fair treatment and due regard for the welfare of every employee.

J. M. McQUEEN, President.

Important Facts Which the Public Generally Does Not Know.

Jones & Laughlin Steel Corporation,
American Iron and Steel Works,
Pittsburgh, Pa., May 31.

The report of the Committee on the Twelve Hour Day was made after months of painstaking investigation by the various members, with a sincere desire on the part of all to meet the wishes of President Harding. No other report was possible under the conditions as found, and the American Iron and Steel Institute, at its annual meeting on May 25, last, unanimously approved it.

The general public probably does not know that the steel manufacturers, within the last ten years, have voluntarily reduced the number of men working twelve hours from about 75 per cent of the total to 20 to 25 per cent, and did this in spite of some opposition from the men.

Many millions of people agree with Judge Gary in believing that the principles set forth in the Bible are the only sure foundation for a lasting peace among the nations of the world.

WILLIS L. KING.

A Unanimous Decision.

[Telegram to Manufacturers Record.]
Illinois Steel Company,

Chicago, Ill., May 31.

Your telegram very much appreciated. There seems nothing for me to say concerning the twelve-hour labor question further than that I, together with all other members present at the American Iron and Steel Institute meeting, fully concurred in the committee's report.

E. J. BUFFINGTON, President.

Welfare Work of United States Steel Corporation.

CONSTANTLY MISUNDERSTOOD AND MISREPRESENTED, LARGELY DUE TO PUBLIC'S LACK OF KNOWLEDGE ON SUBJECT, THE STEEL CORPORATION HAS SPENT MILLIONS ON TOP OF MILLIONS FOR BETTERMENT WORK AMONG EMPLOYEES.

[In order to give our readers some facts as to what the Steel Corporation is doing in welfare work, not in defence of that company but merely to show what the iron and steel people of the country generally are doing for the betterment of labor conditions, the following facts are given, and in connection therewith are some pages of illustrations showing hospitals and schools, dwellings, club houses, etc., erected by the Corporation for the benefit of its employees.

The employers of the country, including all classes of business men engaged in large manufacturing operations, have been so unceasingly criticized, and especially if they have had the moral backbone and courage to run on the American or Open Shop basis, that it is time these men were defending themselves publicly against the incessant charges of agitators, misled to a very large extent by radical union labor leaders. The facts given here and the illustrations, showing what the Steel Corporation is doing, could be fully matched in proportion to size by the welfare work of hundreds, indeed perhaps thousands, of other large employers of labor. And the employer who is not doing his utmost to better the conditions of laborers, who is not safeguarding their health and protecting them from accident, and paying the largest wages justified by the profit in his business, is falling short of his responsibility to mankind.—Editor Manufacturers Record.]

More than \$112,000,000 was expended for welfare work by the United States Steel Corporation and its subsidiary companies between January 1, 1912, and January 1, 1923, according to official reports. In addition, over \$9,000,000 has been loaned to employees to assist them in the purchase of homes, and pension payments have been made to employees to the amount of nearly \$8,000,000. Thus the 600,000 employees of the Steel Corporation, and its subsidiaries have in little more than 10 years' time participated in benefits, improved living conditions and comforts representing a cost in money of \$129,000,000.

From Minnesota to Alabama, from the mills of the Pittsburgh district to the coal and coke plants in Kentucky, wherever the varied activities of the Steel Corporation and its subsidiary companies are established, there are to be found, in thoroughly organized working form, in all the 136 plants, mines and other operations, the numerous features of the plans for betterment of conditions and the well-being of the individual which originated with Judge E. H. Gary, Chairman of the Board, some 17 years ago, and which have been developed to remarkable efficiency and completeness in the years that have intervened.

At the beginning Judge Gary announced to his corporation managers that there would be no lack of funds to carry into effect every suggestion that seemed practicable for the improvement of conditions affecting the workmen. Accident prevention was particularly stressed at the very beginning, and it was announced that every effort practicable would be made to prevent injury to employees. So effective have these measures proved to be, since first inaugurated in 1906, that serious and fatal accidents are now only about one-half of what they were in 1906, and the steel mills of this country have become the safest in the world.

About \$12,000,000 has been expended in improving the general physical status of the plants and operations, and constructive effort has been made to educate the workmen in safety matters and to arouse and maintain their interest and co-operation in the work. One hundred and twenty-five safety engineers and supervisors devote their entire time and energy to accident prevention and the improvement of working conditions. Employees serve on the various safety committees, holding frequent meetings and suggesting physical and operating improvements and discussing safety matters in general. At the present time over 10,000 employees are serving regularly upon these committees.

While everything possible is done to prevent accidents, adequate provision is made for relief in case of injury. First aid and rescue crews have been organized in all the mining

operations and in many of the manufacturing plants. Employees are trained for the work, and so proficient have they become that many prizes have been won at national contests by some of these teams. There are 389 completely equipped emergency stations, maintained by the subsidiary companies at their various operations, and thirteen base hospitals, imposing buildings, thoroughly equipped, have been built by the subsidiary companies.

All the activities of the Steel Corporation and its subsidiaries along these lines are in the general charge of the Bureau of Safety, Sanitation and Welfare, Charles L. Close, manager, headquarters at New York. The details of the work are in the hands of committees on safety, sanitation, housing, education, etc.

Of outstanding benefit and importance is the work of the Committee on Sanitation. In providing proper sanitary facilities at the plants and the mines and in safeguarding the health of the employees and their families in their homes there has been expended more than \$21,000,000. Of fundamental importance, the purity of the water supply for drinking purposes is rigidly maintained. Sanitary drinking fountains, toilet facilities, washing faucets and basins, shower baths, etc. are provided, and the more than 152,000 lockers make it possible for workmen to change from their work clothes to street suits, after removing the grime of toil in the shower baths—a comfort and convenience that is increasingly appreciated.

By the adoption of the most approved modern sanitary methods and practices, physical conditions in the plants and dwelling communities have been raised to a very high standard; and the percentage of occupational diseases and ordinary illnesses among the workers and their families has been greatly reduced. In Alabama, for instance, the number of cases of malarial fever has been reduced from approximately 6000 to 200 annually.

With sanitation the attractiveness of home and plant surroundings has received much consideration. The yards surrounding the plants have been beautified, to form refreshing and inspiring spots on which the eye may dwell, as well as attractive places where workmen may sit during rest periods.

Families are encouraged to beautify their home surroundings also, and prizes are offered for the most attractive gardens. These gardens are proving of incalculable value in inculcating ideas of order and beauty and in the development of tastes and desires for higher standards of living.

The planting of vegetable gardens is also encouraged, and in many places unoccupied company land near the plants is freely given for use as community gardens. The expense of plowing and plotting the ground is usually borne by the company, and assistance is given in the purchase of seeds, plants, garden tools and fertilizers, and cash prizes are given

for the best gardens. It is declared that the vegetable gardens are extremely popular with the employes, and the value of the crops raised amounts to many hundreds of thousands of dollars each year.

Domestic activities include twenty practical housekeeping centers, where the wives and children of employes, particularly of the foreign born, are given lessons in preparing and cooking food, the care and feeding of infants, dressmaking and many other subjects of importance in the house.

Seventy-one visiting nurses are employed by the subsidiary companies, for the benefit of the employes, and their families. Outside of the work in nursing the sick they give instruction in hygiene and sanitation, the care and feeding of infants and invalids and devote themselves to promoting the general well being of the employes and their families. Professionally skilled, tactful and of pleasing personality, and never entering a home until their services are asked for, they are able to win the confidence of the household and are regarded as friends from whom practical advice and aid may be freely sought.

Of advantage to the single men especially, and to housewives in the preparation of the daily dinner bucket, restaurants are established at many of the plants, where well balanced meals of good quality are served. A still further development of this feature contemplates standardization in construction, installation and operation of these restaurants, in the interest of economics and efficiency, of which the employes of the company will be the beneficiaries.

Recreation, good fellowship and a community spirit are the objects sought by various well devised and highly successful clubs, associations and other organizations. There are 111 tennis courts and 125 fully equipped athletic fields, with baseball diamonds, running tracks, etc., and amphitheaters for spectators. There are swimming pools and playgrounds, and 25,000 children daily use them during the summer season.

Competent instructors are employed by the companies to supervise the grounds and the activities of the children, and frequently the young women in the vicinity volunteer their services as instructors during their leisure hours. Besides training in exercises and games conducive to health and mental development, the children receive instruction in various arts, such as sewing, basketry and other useful handicrafts which will be of practical value to them in later life.

The influence of such wholesome outdoor life upon the health of the children cannot be overestimated. It strengthens them both mentally and physically, and the teachings of the instructors are assimilated naturally and applied to their every day life, and result in the betterment of their home conditions.

Many family picnics and outings are arranged for during the season. Their popularity is evidenced by the fact that 60,000 people attended one of the company picnics near Pittsburgh not long since.

Christmas festivities are supervised by the subsidiary companies, who see that decorations, Christmas trees, and the Christmas spirit are not lacking, and no child is allowed to be without some Christmas present.

As music is the common heritage of all nations and races, it is found that no one influence is more potent in drawing the workmen together than music. In Americanization efforts it is declared by leaders in that work, there is no better or easier way to reach the foreign born workmen than through teaching them the patriotic songs of the land of their adoption. In most of the plants there are bands composed entirely of the employes, usually uniformed, equipped and maintained at the expense of the company. Many of the employes have musical talent of high order, and the entertainments by glee clubs, choruses, and brass bands provide an enjoyable and important feature of the social life of the communities.

In educational matters the corporation is doing a work of

such magnitude as would attract attention to the broad nature of its activities, even if this were the sole departure from the mere routine of making steel. A partial list of the subject offered in the educational courses, as follows, gives an idea of the scope and value of the work undertaken:

Elementary and Advanced English
Civics—History of Our Country
Physics
Chemistry
Metallurgy
Blast Furnace Practice
Open Hearth Practice
Rolling Mill Practice
Shop Practice
Gas Engines
Mechanical Drawing
Coke Oven Practice
Masonry Construction
Fuels—Furnaces and Combustion
Heat Treatment of Steel
Alloy Steels
Wire Drawing Processes and Equipment
Modern Industry and Business Management
Elementary and Advanced Mathematics
Elementary and Advanced Electricity

For many years the companies have been carrying on this educational work among their employes, including vocational training and apprenticeship classes. The purposes are:

To increase the efficiency of the workmen by teaching the fundamental and the more advanced principles involved in their individual lines of work.

To increase the earning power of the pupils by guiding them along the paths of quicker and deeper reasoning which lead to positions of gradually increasing responsibility in all departments of the mill.

To promote and develop the happiness of the pupils not only in their daily work in the shops and mills, but in their home life as well by opening the door to a more thorough understanding of the meaning of life and work.

The courses are varied to meet the needs of every employee who is desirous of advancement, whether he is the graduate of a university or a man who has had no special school advantages. The teachers are men actively engaged in their respective lines, either in the mills or in the city. These men are selected because of their scholarship and broad practical experience in the branches they teach. The majority are assistants or foremen in the various departments of the mills, and, therefore, are personally acquainted with many of the students in their classes, which results in an increased mutual benefit. Actual mill problems are considered and studied in every step of the work as it is taken up in the prescribed courses, with the result that each pupil not only learns the principles involved in his own special line of work, but also those that must be understood before he is qualified for the position ahead.

The Subsidiary Companies of the Steel Corporation have exerted their efforts in endeavoring to educate and Americanize their foreign-born workers, and success is attending their efforts. To have a one hundred per cent. America, it is held that the foreign-born laborer must be helped to improve the opportunities afforded him for education and training, so that through knowledge of the language and familiarity with the standards of living in this country, his conditions will be improved, and there will be awakened in him a respect and love for American ideals which will develop into strong loyalty toward his adopted country.

The companies have distributed many thousands of copies of a booklet on "Guide for Applicants for Citizenship" in which the steps necessary to become naturalized are outlined, as well as other facts regarding the United States which

prospective citizens should know. Some of the companies have included a question in their employment application questionnaire, asking if it is the intention of the applicant to become naturalized. This is done for the purpose of ascertaining and assisting those who are desirous of becoming citizens.

The first step in the educational work is the teaching of the English language. Classes are conducted by many companies either in rooms in the mill buildings or through co-operation of the local school authorities, in a school room on two or three evenings of each week. Frequently employees of the companies volunteer as teachers, and lessons begin with the pronunciation of names of objects most familiar to the men in their daily work. These lessons are supplemented by posters and bulletins posted throughout the mills and mines of the companies. As their knowledge increases many of the men attend the local public night schools or Y. M. C. A. classes which are partially maintained by the Company through contributions made at regular intervals.

In one locality this Americanization work is carried on for the sole purpose of assisting the men to secure their naturalization papers. While the actual task is under the supervision of an Americanization Committee, the Subsidiary Companies in the vicinity contribute freely to the maintenance of the schools and teaching staff. The buildings, light, heat and janitor's services are furnished by the school board and everything possible is done to make the schools attractive to the foreigner. The men are taught to read and write, and to insure their interest in the lesson they are encouraged to discuss daily events and to read the newspapers. When they have acquired a sufficient knowledge of English many of the men apply for first papers; and then they receive instructions to fit them to pass the Government examinations for securing their final papers.

Proper housing of the employees and their families is recognized as of the highest importance, and especially in the smaller towns where mining and manufacturing operations are conducted town planning and attention to designs, plans, materials, construction details, etc., has resulted in the creation of model villages. In planning the towns and larger dwelling communities such important features as healthful surroundings, educational and religious opportunities, recreation facilities, and civics have been given the fullest consideration.

To encourage thrift and the feeling of responsibility that home-owning inspires, employees are helped in one of several ways to become the owners of homes. Instalment plans, applying to both erected and to be erected buildings, and also the mortgage plan, covering 75 per cent of the cost of a house and lot, are the methods adopted for financing would-be home owners. It is stated that altogether more than \$9,000,000 has been loaned to employees to assist them in the purchase of homes.

Opportunities to become stockholders in the United States Steel Corporation on easy terms were first given employees in 1903, and on October 1 of last year 154,342 shares of preferred stock and 463,742 of common stock were held by stockholders of record who had acquired stock by the employees' stock subscription plan.

A voluntary savings plan has been established for employees, at the suggestion of the men themselves.

A pension fund of \$12,000,000 was established in 1910, for the payment of pensions to aged and disabled employees. The Steel Corporation contributed \$8,000,000 and Andrew Carnegie \$4,000,000. The fund is administered by a board of 12 trustees through a manager, appointed by the board. The principle features of the fund are:

Compulsory retirement for men at seventy years of age; for women at sixty; after twenty-five years of service.

Retirement at the request of the employee or the employ-

ing officer at the age of sixty-five for men and fifty-five for women, after twenty-five years of service.

Retirement by reason of permanent total incapacity, after fifteen years of service.

Pension Basis: For each year of service one per cent of average monthly earnings for last ten years of service.

Credit for service rendered to any of the plants of the subsidiary companies of the United States Steel Corporation or to the predecessors of such companies.

Minimum pensions, \$12 per month; maximum pensions, \$100 per month.

United States Steel Corporation's Welfare Expenditures, Jan. 1, 1912, to Jan. 1, 1923.

Playgrounds, schools, clubs, gardens, visiting nurses, etc.	\$19,964,931
Sanitation	21,828,051
Accident prevention	10,188,015
Relief for injured men and the families of men killed	32,857,895
The employees stock subscription plan.....	16,102,987
For Pension Fund payments in excess of income provided by Permanent Fund.....	3,097,780
Total pension payment to employees \$7,813,659*	
Additional benefit payments and administration cost.....	400,485*
For the creation of a permanent pension fund..	8,000,000
Total	\$112,039,659

* Not included in total.

Below is a summary of the facilities constructed or installed for the use of employees for the purposes named, January 1, 1923:

Number of dwellings and boarding houses constructed and leased to employees at low rental rates....	28,451
Churches	26
Schools	42
Clubs	34
Restaurants and lunch rooms.....	62
Rest and waiting rooms.....	280
Playgrounds	175
Swimming pools.....	30
Athletic fields.....	125
Tennis courts.....	111
Band stands.....	21
Practical housekeeping centers.....	20
Piped systems for drinking water.....	461
Sanitary drinking fountains.....	4,435
Wells and springs protected against pollution.....	908
Comfort stations (complete units, either bath or dry houses, closets, wash or locker rooms, in separate buildings or within enclosures in the building)....	2,074
Water closet bowls.....	9,690
Urinals	3,546
Washing faucets or basins.....	23,016
Showers	5,416
Clothes lockers.....	152,806
Base hospitals.....	13
Emergency stations.....	389
Training stations (first aid and rescue).....	70
Company surgeons, physicians and internes.....	210
Outside surgeons (on a salary).....	108
Nurses (including nurses in training).....	219
Orderlies and other attendants.....	101
Visiting nurses.....	71
Teachers and instructors.....	197
Sanitary inspectors.....	58
Safety inspectors (spending entire time on work)....	130
Employees who have served on safety committees....	60,796
Employees now serving on safety committees.....	10,110
Employees who have been trained in first aid and rescue work.....	20,658
Employees now in training.....	710

Stock Subscription Plan.

On May 1, 1923, there were 36,059 employees who had paid for and are holding 245,871 shares of stock on which special benefits are being paid. It is impossible to ascertain how many employees, in addition to those yet receiving special benefits that continue for five years, hold stock upon which

these special benefits have ceased to be paid, but it is believed that their numbers would greatly increase the figures here given. In addition there are 18,208 employees who are paying for 165,420 shares of stock on monthly installments.

Statement of Subscriptions for United States Steel Corporation Stock Received and Shares Allotted.

(This statement includes only subscriptions received under which subscribers actually made payments of installments due on subscription price.)

Year	Subscribers	Preferred	Price	Common	Price
1923	41,968	...	...	100,790	\$107.00
1922	34,008	...	...	93,644	84.00
1921	74,196	...	...	237,872	81.00
1920	63,324	...	...	161,178	106.00
1919	59,792	...	...	155,098	92.00
1918	41,991	...	...	93,485	92.00
1917	38,326	...	...	66,519	107.00
1916	24,631	...	...	49,538	85.00
1915	No offer made in this year.				
1914	45,928	42,687	\$105.00	47,346	57.00
1913	35,687	34,418	109.00	25,583	66.00
1912	36,575	30,613	110.00	30,528	65.00
1911	26,305	19,324	114.00	29,072	70.00
1910	17,381	24,679	124.00	...	...
1909	19,116	17,953	110.00	15,380	50.00
1908	24,527	30,398	87.50	...	...
1907	14,163	27,150	102.00	...	...
1906	12,192	24,001	100.00	...	...
1905	8,494	18,180	87.50	...	...
1904	9,912	31,644	55.00	...	...
1903	26,399	47,551	82.50	...	...

Comparative Wage Rates Paid for Common Labor, February, 1913 to September, 1921.

(The changes in these rates from time to time as shown indicate also the general average changes in all other classes of wage earners.)

	Per Hour	Percentage of Increase or Decrease
1913 February 1 .....	.20	
1916 February 1 .....	.22	10.
May 1 .....	.25	13.64
December 16 .....	.275	10.
1917 May 1 .....	.30	9.09
October 1 .....	.33	10.
1918 April 16 .....	.38	15.15
August 1 .....	.42	10.53
October — Intro-		
duction Basic 8 hour		
day, making an in-		
crease of earnings of		
10% on 10 hour, and		
16% on 12 hour men.		
An average in earnings		
of all of about 11½%	\$0.49 12 hrs.	
(A) .42	.462 10 hrs.	11.50
	.53% 12 hrs.	
1920 February 1,		
(Basic Day) (B) .46	.506 10 hrs.	9.50
	.4316 12 hrs.	
1921 May 16		
(Basic Day) (C) .37	.407 10 hrs.	-19.56
1921 July 16		
(Basic Day abrogated) .37		-10.30
1921 August 29	.30	-18.92
Approximate average earnings per hour for all Common Labor		
—12 hour and 10 hour men combined:		
(A)	46.83 cents.	
(B)	51.28 "	
(C)	41.25 "	
1922 September 1	.36	20%
1923 April 16	.40	11%

The warehouse industry of San Francisco, involving the handling and storage of the major portion of the non-perishable food supplies that pass through the city, on April 18 adopted the American Plan and is now operating firmly on that basis of employment, according to a recent announcement of the San Francisco Industrial Association.

All Members of Committee Sincere in Desire to Eliminate Twelve-Hour Day Soon as Possible.

[Telegram to Manufacturers Record.]

The Youngstown Sheet & Tube Co.,

Youngstown, Ohio, May 31.

The report of the Special Committee on Elimination of the Twelve-Hour Day in the Steel Industry speaks for itself and was unanimously adopted by the committee. The investigation extended over several months and was without prejudice or expression of opinion until all the facts and figures were completed. Judge Gary, as well as the balance of the committee, is without question sincere in his desire to eliminate the twelve-hour day as soon as it can be done without injury to employees or the public. The splendid example set by the Steel Corporation in welfare work, for its employees should convince every one of Judge Gary's sincere interest in the workmen in the steel industry. It should not be forgotten, however, that the public is entitled to some consideration, and for that reason the committee considered the matter from all angles.

J. A. CAMPBELL, President.

TEXAS STEEL COMPANY ORGANIZED.

Will Convert Plant at Fort Worth Into Electric Steel Mill—Initial Capacity 50,000 Tons Per Annum—Capitalized at \$2,500,000.

The Texas Steel Company which has been organized by John H. Kirby of Houston and others with a capital stock of \$2,500,000, will take over, convert and operate a plant at Fort Worth. In connection with the enterprise, Mr. Kirby wires the MANUFACTURERS RECORD as follows:

"The Texas Steel Co. will take over the plant of George W. Armstrong & Co. and convert it into an electric steel plant for the manufacture of merchant and reinforcing steel bars, steel castings and oil well supplies and cotton ties. It will have an initial capacity of 50,000 tons per annum. The mills and oil well supply equipment are already installed. The initial expenditure for electric furnaces contemplates an investment of \$100,000, but this is only the beginning. The Pittsburgh Furnace Corporation of Pittsburgh, Pa., is the contractor."

It is stated that the new company, using the present iron works as a nucleus, will have the electric steel furnaces installed and ready for operation about August 1. The number of employees at the beginning of operations will probably reach 200 and it is thought that between 400 and 500 men will be employed by the time all units are completed, requiring a monthly pay roll of \$50,000.

Later developments are expected to include a gray iron foundry which will employ 75 additional men, and the enlargement of the oil well supply department which has been in continuous operation, employing 100 men.

The Cameron plant has been in operation as an iron plant for a number of years, but the trend in the West is now toward steel and it is stated that it is Mr. Kirby's recognition of this situation that induced him to convert the plant to a steel mill and make enlargements which will meet the demand in Texas and the West for steel products.

Manganese Ore Discovered in St. Landry Parish.

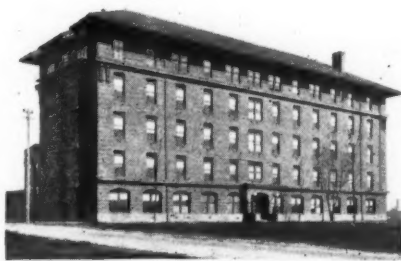
Baton Rouge, La.—Manganese ore deposits have been discovered in St. Landry parish about ten miles west of Opelousas, according to a statement attributed to Dr. Howe, professor of geological engineering in the Louisiana State University here.

It is stated that the extent and commercial value of the ore will be determined later, after Dr. Howe has had an opportunity to make tests.

EMERGENCY AND BASE HOSPITALS



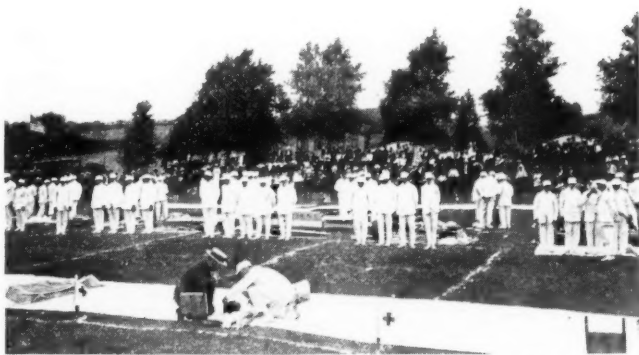
Tennessee Coal, Iron and Railroad Company Hospital, Fairfield, Alabama



Illinois Steel Company Hospital, Gary, Indiana



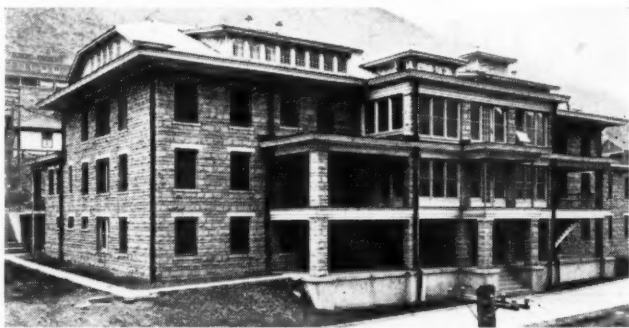
Oliver Iron Mining Company Hospital Hibbing, Minnesota



Regional First Aid Contest Held at Leisenring No. 1 Mine H. C. Frick Coke Company



Operating Room, Emergency Hospital, Universal Portland Cement Company Buffington Works



United States Coal and Coke Company Hospital, Lynch, Kentucky

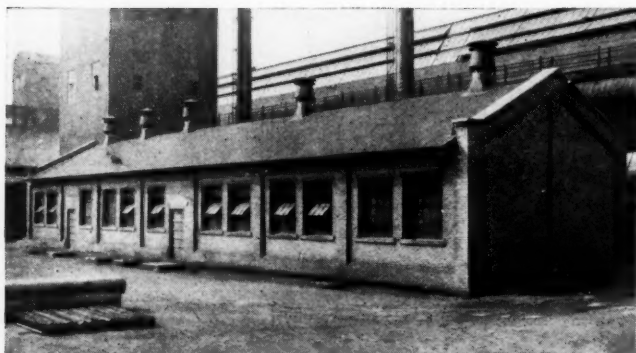


Emergency Hospital, Carnegie Steel Company, Duquesne Works



Kitchen in Tennessee Coal, Iron and Railroad Company Hospital, Fairfield, Alabama

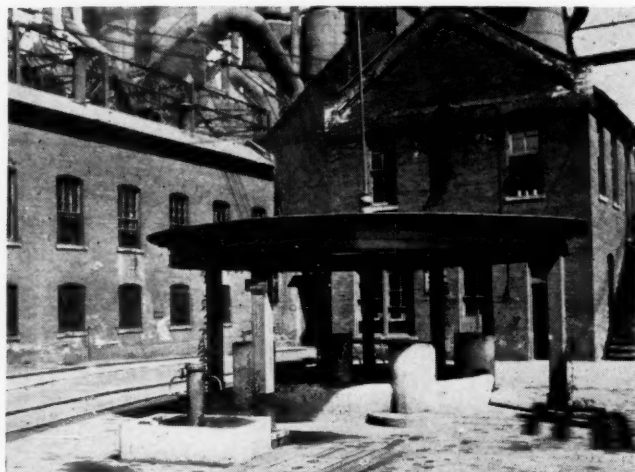
SANITATION



Comfort Station, National Tube Company, Christy Park Works



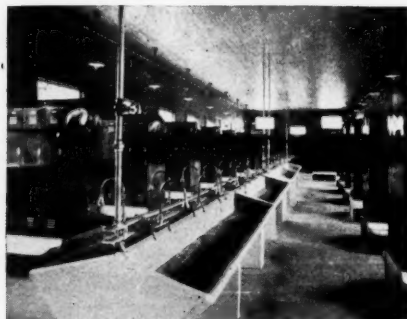
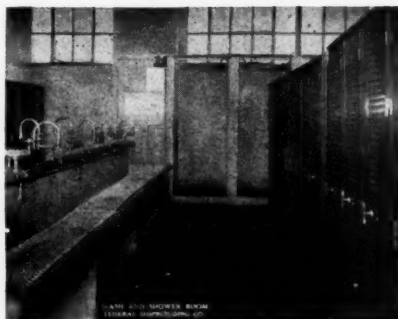
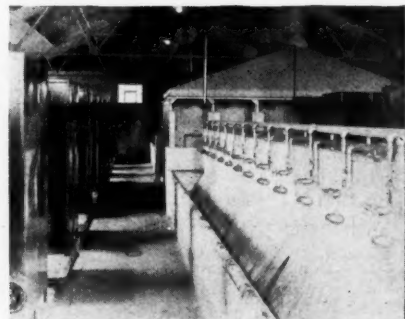
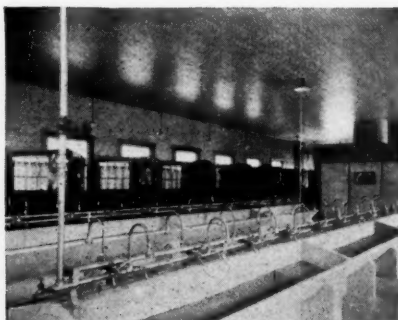
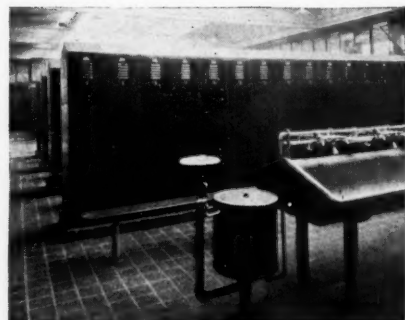
Bath House for Employees, H. C. Frick Coke Company, Maxwell Mine



Drinking Water Fountains at Blast Furnaces, Illinois Steel Company South Works

Mosquito Control—Banks Cleared of Vegetation and Power Launch in Action
Tennessee Coal, Iron and Railroad Company

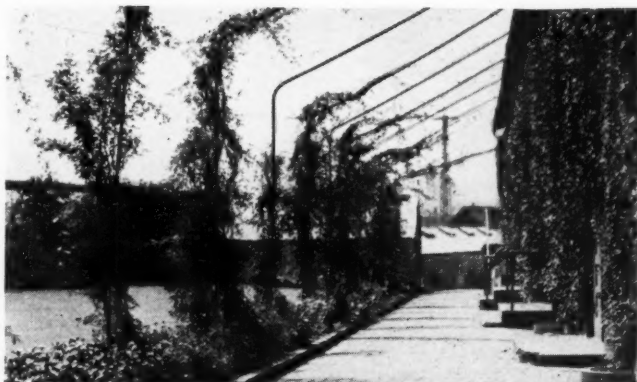
GENERAL VIEWS OF COMFORT STATIONS—ALL WASHING FACILITIES ARE OF THE FLOWING STREAM TYPE

Wash and Locker Room
Lorain Steel Company, Johnstown, PennsylvaniaWash and Locker Room
Federal Shipbuilding CompanyWash and Locker Room
Illinois Steel Company, Gary WorksWash and Locker Room, American Sheet
and Tin Plate Company, Gary WorksWash and Locker Room
Lorain Steel Company, Johnstown, PennsylvaniaWash and Locker Room
National Tube Company, Lorain Works

SANITATION—PLANT YARD CONDITIONS



General View of Grounds and Entrance to Works, American Sheet and Tin Plate Company, Gary, Indiana



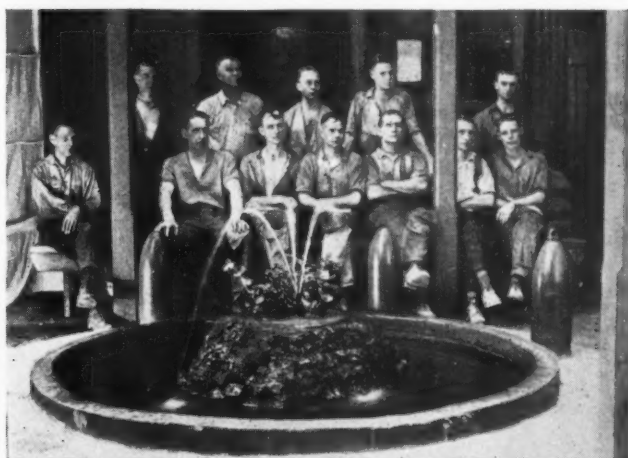
View Along Safety Hall, Carnegie Steel Company, New Castle Works



View in Yard, National Tube Company, Christy Park Works



Plant Yard, Lorain Steel Company, Johnstown, Pennsylvania

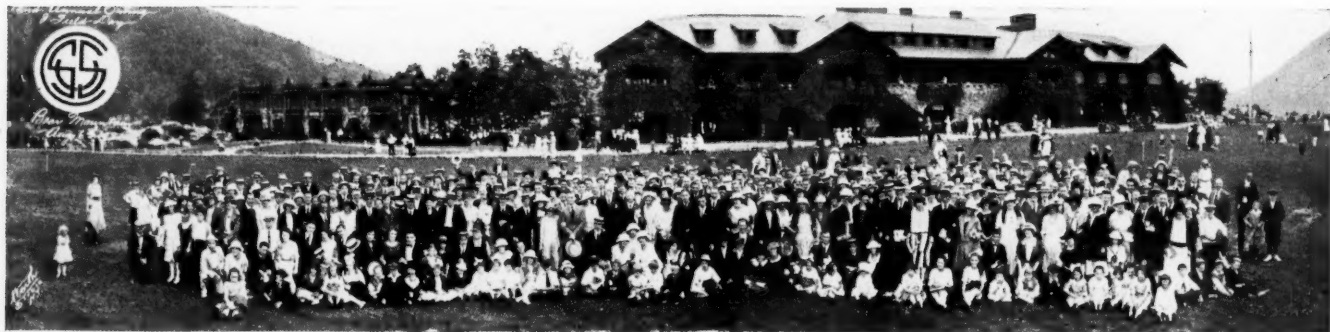


Fountain at Open Hearth Department. An Attractive Place for the Men During Their Rest Period. American Sheet and Tin Plate Company Vandergrift Works



Surroundings at Engine Men's Quarters, Elgin, Joliet and Eastern Railway Company, Waukegan, Illinois

GOOD FELLOWSHIP CLUBS



✓ Picnic and Outing, Good Fellowship Club, United States Steel Corporation, 71 Broadway, New York City



Community Building, Minnesota Steel Company, Morgan Park



Annual Automobile Outing for Children, Good Fellowship Club
Illinois Steel Company, South Works



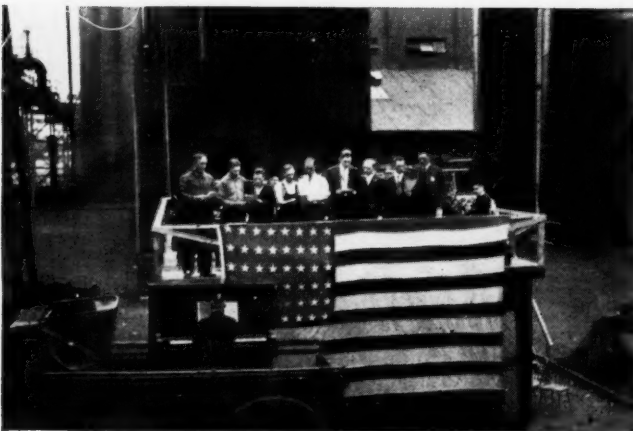
Reading Room in Club Building, Oliver Iron Mining Company
Virginia, Minnesota



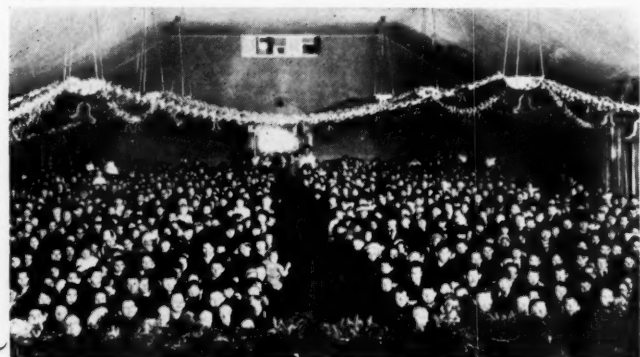
Mothers' Club Outing, Oliver Iron Mining Company, Virginia, Minnesota



Football Team, Welfare House Boys' Club, American Sheet and Tin Plate
Company, Laughlin Works



Noonday Glee Club and Band Concert in Mill Yard
American Steel and Wire Company, Coke Works



Good Fellowship Club Christmas Entertainment, Minnesota Steel Company
Morgan Park

PLAYGROUNDS



Children's Doll Show. Carnegie Steel Company, Duquesne Works



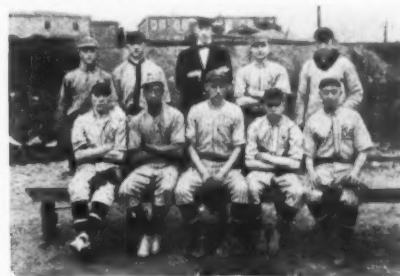
Scene from Colored Pageant, "The May Queen's Festival," Tennessee Coal, Iron and Railroad Company, Westfield, Alabama



Open Hearth Department Bowling Champions, Illinois Steel Company, Gary Works



Calisthenics for Office Employees American Steel and Wire Company



Baseball Team Lorain Steel Company, Johnstown, Pennsylvania



Swimming Pool, Lorain Steel Company, Johnstown, Pennsylvania



Playground, American Steel and Wire Company, Braddock Works



Playground, American Sheet and Tin Plate Company, Shenango Works



Wading Pool in Playground, The National Tube Company, Lorain Works



Playground, Carnegie Steel Company, Ohio Works

PICNICS AND OUTINGS



Boy Scouts' Camp, Pleasant Lake, Oliver Iron Mining Company



Employees' Picnic, Keystone Limestone Company, Moler Quarry



Employees' Band, Illinois Steel Company, Milwaukee Works



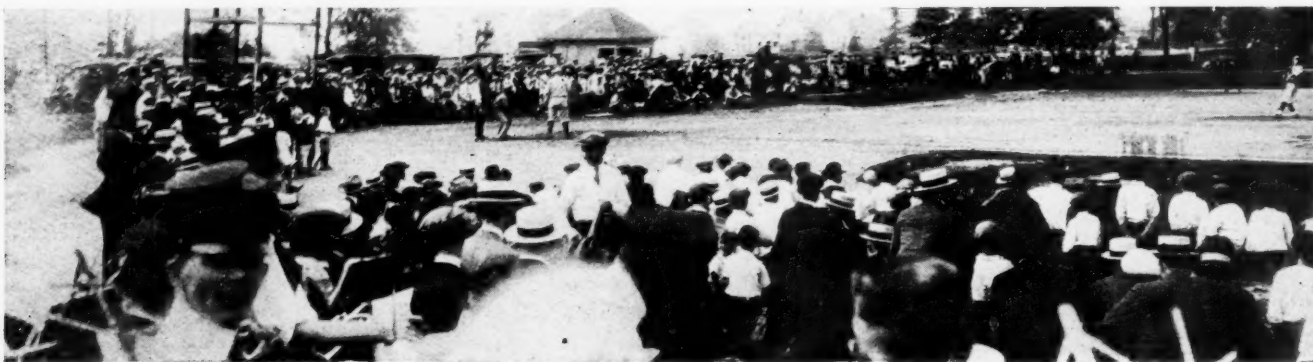
Safety First Picnic and Rally—35,000 in Attendance
Carnegie Steel Company, Duquesne Works



View from Girl Scouts' Camp, Pleasant Lake, Oliver Iron Mining Company



Employees' Picnic, National Tube Company, Ellwood City, Pennsylvania



Baseball Game at Employees' Outing, American Steel and Wire Company
Cuyahoga Works

HOUSING



Carnegie Steel Company, McDonald, Ohio



Keystone Limestone Company, Millville, West Virginia



Carnegie Steel Company, Homestead, Pennsylvania



Gary Land Company, Foreign Sub-Division, Gary, Indiana



Carnegie Steel Company, Farrell, Pennsylvania



Carnegie Steel Company, Wilson, Pennsylvania



American Steel and Wire Company, Donora, Pennsylvania



Carnegie Steel Company, East Pittsburgh, Pennsylvania



National Tube Company, Ellwood City, Pennsylvania



Minnesota Steel Company, Morgan Park, Duluth, Minnesota

HOW HOUSES ARE MOVED INTACT ACROSS KANAWHA RIVER AT CHARLESTON.



In clearing the site for the new state capitol at Charleston, W. Va., there were 32 houses found which were too good to be destroyed, and plans for their removal elsewhere were taken up. Contract was finally made with John Eichleay & Co., of Pittsburgh, to remove the houses intact. Twelve of the houses are to be moved across the Kanawha river, and the illustration herewith shows the work underway. It is stated that the work is done so carefully that nothing need be removed from the interior of the dwelling. All the contents are left as if the family had just gone out for a stroll or a drive. The house is removed to a foundation previously constructed, and when the family returns it is found in undisturbed order, with nothing out of place and not even the slightest crack in the plastering.

The removal is made at a great saving to the owners in cost of tearing down and rebuilding.

In the illustration the blocking is 40 feet high above the barges. A record feat is given by the Eichleay Co. as involving the removal of a brick house in Pittsburgh 44x85 feet, which was raised 168 feet and removed 500 feet to a new site on top of a hill.

Contract Awarded for New Power Station at Estimated Cost of \$370,000.

Paducah, Ky., June 4—[Special.]—The Paducah Electric Co., which furnishes electric light and power, gas and street railway service to Paducah, has awarded a contract to Stone & Webster of Boston, Mass. for the design and construction of a new power station. The first bay will be built adjoining the present station and the design will allow for future expansion by adding more bays up to 15,000 kilowatts or more.

The new building will be 104 by 25 feet, of steel frame construction, with brick walls and stone trimmings. A 2500 kilowatt Westinghouse turbo-generator will be installed and a 612 horse power Sterling boiler with chain grate stokers and the necessary auxiliary equipment. Complete coal handling equipment for conveying coal from the cars through a crusher and overhead bunker to the new stoker and to the floor of the present boiler room will be provided, as will also equipment to facilitate handling coal to and from yard storage. The estimated cost of the new station is \$370,000.

HOUSTON SELLS \$4,000,000 OF IMPROVEMENT BONDS.

General Program of Development of Port Facilities Planned—Contract Let for Wharf Construction.

Houston, Tex., June 2—[Special.]—The Navigation District Commission has sold the entire issue of \$4,000,000 bonds, the proceeds to be used in improvements of the port of Houston, to the National Bank of Commerce of this city on a bid of par and accrued interest and a premium of \$30,000. The Commission immediately awarded the contract to List & Gifford of Dallas for dry excavation on the site of the six new wharves to be built on the north side of the turning basin, to cost approximately \$216,000. The contract calls for dry excavation of about 400,000 cubic yards of earth at a cost of 54 cents per cubic yard. A site will also be included for new railroad to serve the wharves.

The general improvement plans for the port include the construction of about six wharves, one grain elevator and wharf; railway yards, trackage and connections; roadways on port property; water supply and electric system; lease or purchase of wharf sites and right of way, and necessary improvements in connection with existing facilities and for operation of port facilities now constructed or to be provided.

The bonds are to bring 5 per cent interest, payable semi-annually, April 15 and October 15, and will mature at the rate of \$130,000 per year for five years and \$134,000 per year for 25 years thereafter.

To Erect \$500,000 Office Building.

Miami, Fla.—Plans have been prepared by Kiehnel & Elliott of Pittsburgh, Pa., with offices in Miami, for a ten-story office building to be erected here by S. M. Tatum and others at a cost of \$500,000. The building will be 152 by 60 feet. Only two stories will be erected at present, this portion of the structure to cost \$100,000. Construction will be of heavy steel and concrete with tile or concrete curtain walls.

The first floor will have a 14-foot ceiling and will be fitted for store rooms. There will be 32 offices on the second floor,

New \$2,000,000 Freeport Sulphur Company Plant at Hoskins Mound Goes Into Operation.

FIFTH OF THE COMPANY'S PLANTS STARTS PRODUCTION IN TEXAS FIELD.

[Special Correspondence Manufacturers Record.]

Houston, Tex., June 2.

Plant "E" of the Freeport Sulphur Company at Hoskins Mound produced its first sulphur on April 1, 1923, the day originally scheduled for completion of the plant.

Before actual construction work could be started it was necessary to build 15 miles of railroad to reach the site. Construction of this railroad was started in June, 1922, and construction of the actual plant, which started operation recently, was not begun until October, 1922.

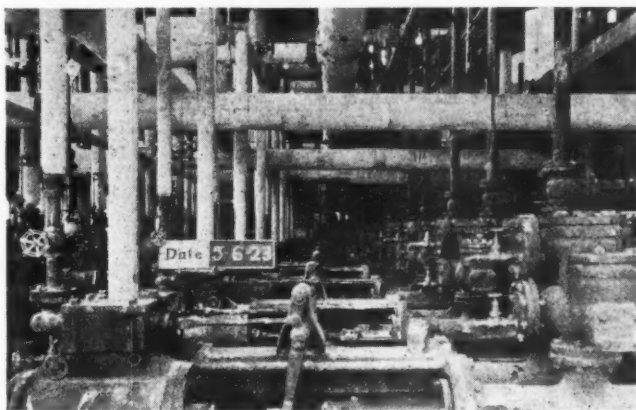
The Frasch method of mining sulphur requires great quantities of steam and hot water. A system of reservoirs has been provided at Hoskins Mound for the storage of over 100,000,000 gallons of water. The steam plant consists of a battery of Stirling boilers totalling 8400 h. p. These are housed in a steel frame building with extensive pumping equipment for forcing the superheated water down into the mines. This main building, the carpenter and blacksmith shops and the garage constitute the principal units of the plant. The completion of this plant in six months' working time, especially when construction had to be carried on in such a remote location, is noteworthy.

It is stated by Charles E. Herrmann, vice-president of The Texas Company, that although the full battery of boilers have not yet been installed the sulphur output of the new mines has reached as high as one thousand tons per day which was the estimated capacity of the completed plant. Explaining the opening of this sulphur deposit and The Texas Company's connection with the enterprise, Mr. Herrmann said:

"Some years ago The Texas Company, while drilling for oil at Hoskins Mound in Brazoria County, Texas, on lands held under lease from the Mound Company, encountered rich strata of sulphur at depths ranging from 800 to 1500 feet. The land embraced in this lease consisted of two tracts, one of 2500 acres and the other of 500 acres, and, fortunately, the lease included sulphur as well as oil and gas, the specific royalty on sulphur being \$1 per ton.

"Thereupon wells were drilled at different points on the mound for the purpose of determining the extent of the de-

posit, until sulphur had been encountered in enough holes, considering the thickness of the strata, to prove at least 6,000,000 tons of recoverable sulphur. This is the minimum according to engineers who were employed to study and report upon the matter. The limits of the mine have not been determined by drilling on all sides, and it is considered probable at least that the recoverable sulphur may amount to a



VIEW OF INSTALLATION OF CIRCULATING PUMPS

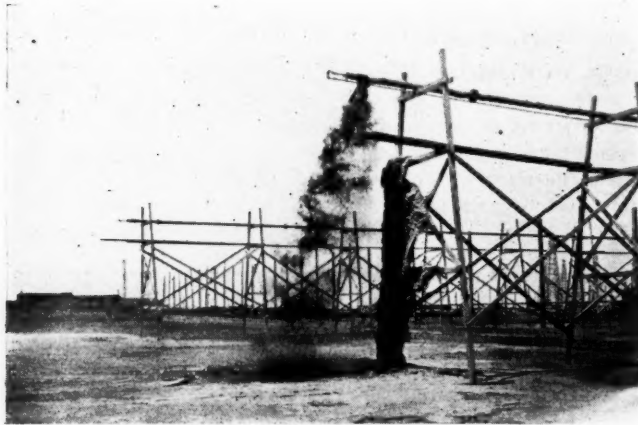
great deal more than 6,000,000 tons. However, the quantity established was deemed sufficient for profitable operations. And The Texas Company having no charter power or desire to engage in the sulphur business was under the practical necessity of making some disposition of this asset.

"On March 14, 1922, The Texas Company entered into an agreement with the Freeport Sulphur Company for the development of Hoskins Mound. The sulphur company agreed to construct at its own expense a plant with all auxiliaries and facilities for the extraction of sulphur, and to diligently market the product of this property, paying royalties of the Mound Company and all other expenses. By the terms of this agreement The Texas Company is to receive an amount corresponding to 50 per cent of the net profits until the sulphur



GENERAL VIEW OF FREEPORT SULPHUR PLANT AT HOSKINS MOUND, TEX.

company out of the remaining 50 per cent has realized the amount of its plant investment with interest thereon at 6 per cent per annum, and thereafter an amount corresponding to 70 per cent of the net profits. The sulphur company entered into a stipulation that not less than one-half of the sulphur



SULPHUR VAT DISCHARGE LINES

marketed by it or any of its affiliated companies during any fiscal period shall be of sulphur from Hoskins Mound, provided such quantity is available there; and marketing expenses and realizations are apportioned according to quantities of sulphur supplied as between Hoskins Mound and other sources.

"The first thing done by the sulphur company was to obtain an extension of the Houston & Brazos Valley Railroad



WATER PUMPING STATION, BASTROP CANAL, DISCHARGING WATER INTO DRAINAGE CANAL

to the mound. This was accomplished with reasonable promptness and plant material was transported, construction proceeded, and the plant was installed. Its cost is something over \$2,000,000.

"The Freeport Sulphur Company has had years of experience in producing and marketing sulphur, and has excellent marketing connections, both domestic and foreign. Large foreign consumption and good prices abroad are expected, in view of the marketing arrangements that have been reported. At present the price of sulphur is from \$14 to \$16 per ton at the mine. It is too early to say what expenses of operation will be, but good profits are in sight for The Texas Company."

This is the fifth plant of the type that has been built for the Freeport Sulphur Company by Dwight P. Robinson & Co. of New York in the last ten years. The work was carried on under the supervision of Cloyd M. Chapman, consulting engineer for the Freeport company.

WARRIOR BARGES FULLY EMPLOYED DESPITE EMBARGO.

Paper, Machinery, Ore and Sulphur Among Commodities Moving.

[Birmingham, (Ala.) Age-Herald.]

Despite total embargo of the ports of Tuscaloosa and Demopolis and embargo of the port of Cordova, save as to coal and coke, Warrior River craft is fully employed on a variety of movements involving heavy tonnage.

A feature item of the present traffic is a solid barge of white paper from Germany for the Birmingham Paper Company, consisting of 300 tons. This came by steamer direct to New Orleans and barge is being loaded with it there for Birmingham. The paper is used in the manufacture of school tablets.

Including the present shipment the Birmingham Paper Company has received about 1500 tons of German and Swedish paper through this all-water route at a saving of \$5 a ton in the freight charge. Atlanta has been getting this paper.

Another feature movement out of Mobile Saturday was a barge of machinery for the Bladen Springs Lumber Company at Secession Point, on the Warrior. This is also an all-water movement, the machinery having come down the Mississippi river via barge to New Orleans and thence to Mobile. From Wisconsin to inland Alabama by all-water route is regarded, in shipping circles, as foreshadowing potentialities of the Mississippi-Warrior connection.

Other cargoes now headed up stream are these:

The self-propeller Tuscaloosa is on the way to Birmingham with a load of 1400 tons of Brazilian ore for the Tennessee Company mills.

The Cordova is coming north towing two barges of manganese ore, two barges of sulphur from Texas for Birmingham acid plants and one of general merchandize. This movement is also to Birmingham.

The Demopolis is leaving Mobile Sunday with two barges of manganese ore, two of sulphur, one of merchandise and a barge carrying machinery for Secession Point.

Coal shipments down the river are not disturbed by the embargo. The Mobile left Cordova Saturday with 1500 tons of coal for Mobile.

The federal coal terminal at Mobile with bins holding 40,000 tons of coal is proving of great convenience to ships putting in there and a growing business in Alabama coal for bunkerage purposes is resulting. For example, the steamer Swinburne, putting out for Buenos Aires Saturday, took on 2450 tons of coal from the federal bins.

One of the most regular river operations is that of coal and steel products to Galveston and Houston with return cargoes of Texas sulphur for Birmingham chemical works. The Texas-bound cargoes go in ocean barges towed by ocean-going tugs and they bring back sulphur in return cargoes. The barge Coastwise, towed by the tug DeBardeleben, left Mobile Saturday for Houston with a load of steel products from the mills of the American Steel and Wire Company at Fairfield, and will bring back sulphur.

The American Steel and Wire maintains large warehouses at Houston and Galveston for distribution purposes and that being a large market for the Birmingham product, the movement Texas-ward is continuous. The tonnage of return sulphur is likewise heavy and continuous. Principal takers of this sulphur is the Steel Cities Chemical Company at Fairfield, of which R. A. Brown is president.

Warrior shippers as well as the public at large were interested in the survey of the Warrior with view to locating a paper mill, made by the highest officials and experts of the Great Southern Lumber Company, Bogalusa, La., last week. They expressed gratification not only over the prospect of a large paper mill on the Warrior, but the other prospect of having such a string interest this concern is becoming identified with the shipping interests and facilities of the Warrior.

The Great Southern people were so impressed with the Warrior, according to their statements, that they express surprise that Alabama shippers had not shown a greater appreciation of its facilities by more extensive use of the same.

N. W. Guice, general agent of the Warrior, says business between Birmingham and Mobile and New Orleans remains at the peak.

Sealed bids will be received until June 12 by the Board of Supervisors of Lafayette county, Oxford, Miss., at the office of the Chancery Clerk for improving 1.818 miles of the State Trunk Road between Oxford and Holly Springs.

Co-operative Banks in Massachusetts and Their Influence in Home Owning Operations.

By JOSEPH C. ALLEN, Commissioner of Banks, Massachusetts.

There is a class of banking institutions in Massachusetts, known as "co-operative banks," which are essentially home building associations. They are similar in many respects, and decidedly dissimilar in others, to the building and loan associations in many other states.

With assets of \$225,092,101.14 on October 31, 1922, and growing rapidly, the stabilizing influence of these banks in the industrial and political life of the Commonwealth can scarcely be over-estimated. When it is remembered that the Massachusetts co-operative banks have not as yet much more than scratched the surface of the immense field open to them, one can understand how important they are likely to become in the very near future.

The co-operative banks of Massachusetts make it possible for people of small or moderate means to own their own homes. In almost every city and town in the state there are homes owned by working people, built or purchased through the assistance rendered by the co-operative banks.

Furthermore, the habit of thrift inculcated in large numbers of persons by the co-operative bank plan has been the foundation for successful business achievements and old age independence. Systematic savers invariably are good citizens.

As already indicated, co-operative banks are established for two purposes: first, to encourage thrift by providing the machinery for systematic saving; and, secondly, by assisting members to purchase or build their own homes.

The history of the co-operative banks in Massachusetts has been one of steady progress along conservative lines. In 1875 and 1876 leading men of affairs petitioned the Legislature to pass an act authorizing the establishment of building and loan associations patterned after those in successful operation in Philadelphia. The petitions were rejected. Finally, however, in 1877, through the efforts of a number of public-spirited citizens, an act was passed by the Legislature for the establishment of "Co-operative Savings Fund and Loan Associations" and was signed by the Governor the same year. In 1883 the original name of these institutions was changed to "Co-operative Banks," the former name being considered too long for convenient use.

The first cooperative bank in Massachusetts was established in the summer of 1877. At the close of that year there had been ten such institutions chartered to do business in the Commonwealth. The growth of the system in Massachusetts is shown in these figures:

Year	No. of Banks	Membership	Assets
1880	16	(not available)	\$372,462.31
1890	103	43,896	9,264,833.34
1900	126	71,965	27,721,748.42
1910	147	142,355	61,498,838.29
1920	202	296,197	173,979,204.70
1922	209	327,123	225,092,101.14

The census of 1920 showed a population in Massachusetts of 3,852,356. Allowing for some duplication in shareholders, some members being shareholders in two or more banks, it is apparent that there is widespread interest and confidence in the co-operative banks. A part of the growth in recent years is attributable to legislation which allows these banks to retain shares at maturity, instead of being obliged to return the funds to the shareholders. Also, they are now permitted to issue paid-up shares. In the 1922 statement these two classes of indebtedness amounted to \$27,527,000.

Legislation of great advantage to the banks was enacted in 1914 and amplified in 1920, allowing them to borrow, under certain conditions. When there is an unusual demand by shareholders for real estate loans, or withdrawals are unexpectedly large, a bank may find it desirable to borrow

temporarily. It has the right to do this, subject to the approval of the Commissioner of Banks. It may borrow from any trust company or bank for a period not exceeding six months and it may pledge any part of its resources as security for such loans.

In order to form a co-operative bank it is necessary that twenty or more persons associate themselves by a written agreement for the purpose, as stated in the statutes, "of accumulating the savings of its members in fixed periodical installments and loaning such accumulations to them." Upon complying with certain laws and regulations they may become a corporation subject to all general laws relating to such corporations.

The statutes of the Commonwealth provide that the subscribers to the agreement must give notice to the Board of Bank Incorporation of their intention to form such an institution, and make application to said board for a certificate that public convenience and advantage will be promoted by the establishment of a bank of this kind. A public hearing is then held, and if the board grants a certificate the applicants must become incorporated and begin business within six months after its date of issue, otherwise the certificate is considered revoked.

At the first meeting of the subscribers to the agreement, duly called, the incorporators organize, adopt by-laws and elect officers. The president and a majority of the directors who are elected at this meeting sign and make oath to articles in duplicate, which set forth a copy of the agreement of association, the names of the subscribers to it, the name and address of each of the officers and directors of the corporation, and the date of the first meeting. One duplicate original of these articles is submitted to the Board of Bank Incorporation and the other, together with the records of the proposed corporation, to the Commissioner of Corporations and Taxation, who, if he finds the articles in proper form, so certifies and endorses his approval thereon. The articles are then filed with the Secretary of State who causes them to be recorded and issues a certificate of incorporation, which, when signed and sealed by him, has the force and effect of a special charter.

A board of not less than five directors, who are elected by the shareholders, manage the business and affairs of the bank. The president, vice president, and treasurer are chosen either by the shareholders or by the board of directors, as the by-laws may prescribe. A security committee of not less than three members is elected by the board from its own number. The duty of this committee is to examine real estate offered as security for loans.

Capital is accumulated by the sale of serial shares and fully paid shares. Shares are issued in series annually, semi-annually or quarterly, a deposit of one dollar per month as dues being required upon each share, payable on or before a certain date as specified in the by-laws of the bank. One person may not hold in excess of forty serial shares. The monthly payments continue until such times as they, together with the profits or dividends distributed thereto, reach the value of \$200 each; they are then considered to have reached maturity and no further payments of dues thereon are permitted. The owner of the shares may then receive their value or, if he so desires, and at the option of the directors, he may leave the matured shares with the bank in the value of \$200 each, but not exceeding ten in number. Paid-up, or fully paid shares, may be issued at \$200 each, subject to the approval of the board of directors, to be paid for by

the purchaser at the time of issue. Only ten shares may be issued to one person. A bank is not permitted to issue paid-up shares to an amount exceeding 10 per cent of its assets. No person is permitted by law to hold more than forty unmatured or serial shares, ten matured and ten paid-up shares in any one bank.

The principal investment of co-operative banks is first mortgage loans on real estate. A person desiring a loan must make a written application stating the amount of loan desired and giving a description of the property offered, together with any other necessary information which may be required. The application is passed upon by the security committee, which reports thereon in writing, approving or disapproving the security offered and certifying to the value of the property according to its best judgment, and the report must be signed by at least two members of the committee. On any such loan the equity of the borrower, based upon the valuation by the security committee, must be at least 20 per cent above all encumbrances when the security is improved real estate, and at least 50 per cent when the security is vacant land.

A note is given for each loan, secured by a mortgage upon real estate situated in the Commonwealth, the title of which is in the name of the borrower. As further security the note and mortgage contain a transfer and pledge of one share for each \$200 of the loan. \$8000 is the maximum amount of loan which can be made upon one parcel of real estate. The shares pledged are held by the corporation as additional security for the performance of the conditions of the note and mortgage. The note provides that dues on the shares and the interest upon the loan shall be paid monthly, together with all fines on payments in arrears, until such time as the shares reach their matured value or the loan is otherwise cancelled or discharged.

Loans may also be made upon unpledged serial shares, matured shares and paid-up shares to an amount not exceeding 90 per cent of the withdrawal value of serial shares, or 90 per cent of the face value of matured or paid-up shares. For every such loan a note is given, accompanied by a transfer and pledge of the shares borrowed upon, as collateral for the loan.

The directors may also invest any surplus funds in the public funds of the United States or of any of the New England States. Investment may also be made in the bonds or notes of any county, city or town in the Commonwealth of Massachusetts, or in the bonds or notes of any county, city or town of the other New England States, under certain restrictions as provided in the statutes. The legally authorized bonds of certain other states, subject to certain statutory limitations and restrictions, are also legal investments for a co-operative bank.

The profits are distributed by the board of directors annually, semi-annually or quarterly to the shares in force at that time, or whenever a new series of shares is to be issued. Such distribution is made in proportion to the value of the shares at the time and is computed upon the basis of a single share fully paid to the date of such distribution. At each distribution of profits on unmatured shares, dividends are also declared on outstanding matured shares and paid-up shares, such dividends being payable to the owners thereof on demand.

There is reserved at each distribution as a guaranty fund not less than 1 nor more than 5 per cent of the net earnings for the period, until that fund amounts to 5 per cent of the total liabilities. The fund thereafter is maintained and held available to meet any losses incurred in the business of the corporation from the depreciation of its securities or otherwise. At such distribution of profits not more than 1 per cent of the net profits for the period can

be credited to the surplus account unless there has been credited to the guaranty fund the maximum of 5 per cent of the net earnings. Whenever the guaranty fund and surplus account together exceed $5\frac{1}{4}$ per cent of the total liabilities, an extra dividend must be declared at such rate as may be necessary to apportion to the shareholders the accumulation in excess of 5 per cent of the total liabilities.

The law provides that each institution shall be thoroughly audited and examined at least once in each year by the Commissioner of Banks.

The safety of the investment of funds in real estate loans on the co-operative bank plan has been proved by long experience. As already pointed out, under the laws which govern co-operative banks in Massachusetts, a shareholder who wishes to acquire a home, either by purchase or by building, is allowed to borrow up to 80 per cent of the valuation of the property. To one who does not understand the principles upon which the co-operative banks in Massachusetts are established, it might appear that this is altogether too large a percentage of the value that should be loaned. Experience has shown, however, that it is perfectly safe for a co-operative bank to loan up to 80 per cent of the valuation of the property. The reason for this is the fact that when the borrower has once made the purchase or built the house, he begins at once to pay a little on the principal of the note. This is accomplished by the payment of monthly dues. The borrower, in fact if not in terms, reduces the mortgage note each month from the date he purchases the property. It is true that the monthly payment, after deducting interest, is small, but under the Massachusetts plan, the house, nevertheless, is all paid for in about twelve years. Thus the owner is free from the landlord and owns his own home.

There is no other agency or instrumentality, in Massachusetts at least, which accomplishes so much for the working man in assisting him to own his home on easy terms as the co-operative bank. The desire to own the place where he lives is felt by almost everybody. A man who owns his own home is a better man and a better citizen. He has a pride in caring for his own property which he does not feel when he pays rent.

If it were possible for every family in this country to own its own home, many of the problems of the nation would disappear. It makes a man conservative to own a house. He has a stake in the community; he pays taxes directly into the city or town treasury; it makes a difference to him whether the city or town government is conducted wisely and efficiently; he watches the actions and the votes of public officials. It is to his own personal interest that responsible men be elected to office.

The growth of co-operative banks in Massachusetts has not been spectacular, but has been steady and constant from the beginning. They are popular institutions and most of the members are working men, clerks and small business men. Both officers and directors almost invariably are active, alert and able in the discharge of their duties.

The advantages and benefits of membership are recognized and appreciated by the public today to a greater degree than ever before.

Will Erect Dwellings Costing \$300,000.

El Dorado, Ark.—J. W. Atkins, of Shreveport, La., announces that the Atkins Construction & Supply Co., of which he is president, will build \$300,000 worth of dwellings in El Dorado within the next ten months. Of this amount it is stated that \$50,000 has already been expended since February.

The company is building at present on a tract of land near the Lion refinery and will later build on a tract of 60 acres in Craig's West End addition.

SORTING MAIL BY MACHINERY.

Mechanical Method of Distributing letters Declared to Be a Marked Success in Washington City Post Office—Five Operators at Work.

By NORMAN C. McLOUD, Baltimore.

In an apparatus for the distribution of letters by machinery, recently installed, the Postoffice Department has realized a dream of many years standing. Efforts to perfect a machine of this character have engaged the attention of the Department since the postal service assumed the proportions of a great business enterprise. With the increased volume of letters presented for daily transmission, there has been growing conviction that mechanical equipment was essential to satisfactory dispatch.

Until now no machine has produced results which warranted its purchase by the Government. Despite the countless devices that have been produced or projected, there has been nothing to take the place of the human hand in the sorting of letters. Some of the inventions have been dismissed without trial, and others have been given thorough tests, only to be discarded as failing to meet the requirements. The first machine ever regarded as producing results which justify its purchase has recently been bought and placed in service in the city postoffice at Washington, D. C. This machine has been in daily operation under the immediate supervision of the Postmaster General and the mechanical experts of the Department, and is believed to have solved the problem of mechanical distribution.

The machine is a marvel of ingenious construction, the result of several years of labor by the Mechanical Efficiency Company, of Akron, Ohio. In appearance it is long and narrow, with length of 28 feet, width of 4 feet 4 inches, and height of 6 feet 10 inches. Its weight is 7317 pounds.

Along its front the machine has five keyboards, suggesting the keyboards of the Linotype. At each board is seated an operator, and these five men work simultaneously and independently of each other, each of them carrying on a complete cycle of operation. The operator does not have to touch

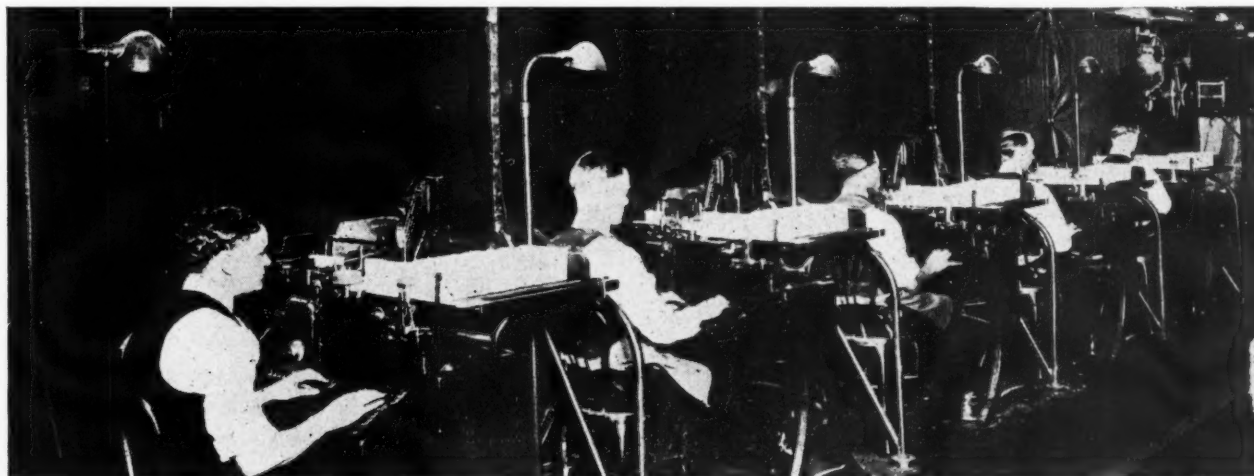
for the missive in its travel through the machine. When the keys have been pressed, the letter is picked up mechanically by its container, which is one of a number of metal carriers attached to an endless chain, in constant motion. By means of this chain the container is carried over a series of receiving boxes or pigeon holes. There are 120 of these boxes, each of them corresponding to a "routing" of mail. The character of this routing is regulated by the normal flow of correspondence from the office in which the machine is installed. An important point, such as Boston, New York, Philadelphia or Chicago may have an individual box. Another box may be



REAR VIEW SHOWING PIGEON HOLES.

assigned to the reception of mail for a group of postoffices in a given area, for an entire state, or for a remote section such as the group of states in the Pacific Northwest.

As the container travels over the boxes it is dropped automatically into the right box by the release of the trigger which was set by the operator's pressure on the key. The containers work on the selective system, similar to the method employed in cash carrier systems in large retail stores, and it



DISTRIBUTING MACHINE FOR SORTING LETTERS. FIVE OPERATORS AND FIVE KEYBOARDS FOR THE ONE MACHINE

the letters. These are brought into position, in line with his eye, by means of an endless conveyor. As each letter comes into view, the operator reads the address, and by the pressure of two keys on his keyboard, "routes" the letter to its destination. The pressure on the keys is accomplished by the use of one finger of each hand, and the instant this movement is accomplished the letter is on its way, leaving before the operator the next letter for his attention.

Pressure of the two keys sets a "trigger" on a container and it is this trigger that determines the point of deposit

is mechanically impossible for the trigger to be released at any other point than over the box for which it has been set.

By having 120 boxes, and having five operators at work on all of them, the machine accomplishes two purposes which are distinct improvements over sorting by hand. One thing achieved is to make a primary distribution into 120 "separations," representing that number of destinations or routings. Under hand sorting the number of separations averages half of this number, for the reason that the primary case generally used has but sixty pigeonholes. By doubling the number of

boxes, the machine makes it possible to give final separation to a larger quantity of mail and to have it ready for dispatch after the first handling. This eliminates the necessity of a second sorting for many of the letters, which is necessary when but 60 "separations" are effected under hand sorting. In this way earlier dispatch is insured, and a consequent speeding up of the mails.

Another result achieved by having five operators work simultaneously on the 120 boxes is to reduce the number of receptacles from which mail must be withdrawn and "tied out" for dispatch. With five men working at hand cases of 60 pigeonholes apiece, there is a total of 300 boxes from which the mail must be taken before it is sent forward to the trains on which it is to be transported. With the five operators concentrated on a single machine the number is reduced to 120, which effects a material saving of time and labor, to say nothing of the twine involved in tying 300 bundles instead of 120.

The speed of the machine is indicated by the fact that the conveyor carrying letters before the eye of the operator makes a complete revolution in approximately 35 seconds. Each keyboard is operated by a small motor of its own, while a larger motor supplies power to the conveyor. An important factor in favor of the new machine is that the sorters may do their work while seated, instead of having to stand for hours, as in handling mail at a hand sorting-case.

Construction Begins on \$250,000 Hotel to Be Erected at Lake Worth, Fla.

Construction of the El Nuevo Hotel to be erected at Lake Worth, Fla., by the El Nuevo Hotel Company at a cost of \$250,000 has begun. The building will be located in one of the most beautiful sections of Lake Worth and within a short distance of the ocean. It will be a fireproof structure, 6 stories, 100 by 132 feet, of hollow tile construction, with concrete floors and metal doors.

There will be 100 guest rooms, a roof garden and an open air dining room. Two passenger elevators will be installed.

G. Lloyd Preacher & Co. of Atlanta are the architects and engineers and A. I. V. Wilson & Co. of West Palm Beach are the general contractors.



EL NUEVO HOTEL TO BE ERECTED AT LAKE WORTH, FLORIDA.

350,000,000 Feet of Gas Available in Fort Smith (Ark.) District.

Fort Smith, May 31—[Special.]—The month of May has been a record breaker in natural gas development in the fields adjacent to Fort Smith in that the two largest gassers in Arkansas have both been brought in during the month.

The first well is owned by the Industrial Oil and Gas Company and shows a measured pipe line production of 23,133,000 cubic feet daily flow. The next record-breaker is owned by the Clear Creek Oil and Gas Company and has a daily production of slightly more than 30,000,000 cubic feet.

In addition to the above, another Clear Creek well was brought in with a daily flow of some four million feet and promptly proceeded to "blow itself out" once and then again, until, when it was finally harnessed to service, its production had mounted to more than 18,000,000 feet.

The present daily flow of natural gas from nearby fields with pipe line connections to Fort Smith is above 350,000,000. These fields are only partially developed. There are also a number of other gas fields which have been proved but not developed, on account of the present tremendous surplus.

Fort Smith has a continuous history of natural gas supply for thirty years and the oldest wells, some of them very shallow, are still producing gas commercially. The gas sands surrounding Fort Smith are "dry." The wells do not drown out and have the longest life of any known fields. The present consumption does not run over 15,000,000 cubic feet per day—not a tithe of the natural gas Fort Smith has ready for industrial use.

Phosphate Rock Output, 1922.

According to the Department of the Interior, 2,417,883 tons of phosphate rock, valued at \$10,828,346, were shipped from mines in the United States during 1922.

Florida, the leading state, shipped 2,058,593 tons, worth \$8,347,522, more than nine-tenths of which was land-peatle phosphate. From Tennessee, 353,309 tons, worth \$2,107,382, was reported including a comparatively small quantity from Kentucky, most of which was brown rock. Small shipments were reported from Idaho and South Carolina.

Nearly \$30,000,000 of Southern Public Improvement Bonds Sold During May—Year to Date Shows Total of Over \$114,000,000.

Despite the fact that the market for bonds has in general been less active in recent weeks and months, there is no indication of any decrease in the sale of bonds for public improvements in the South. In fact, the total of \$29,865,100 for May is larger than for any preceding month this year and compares with \$29,176,400 for May 1922. For the first five months of 1923 the total is \$114,146,008.

These figures are compiled from items published weekly in the financial news columns of the MANUFACTURERS RECORD and each individual bond issue reported represents some important public improvement undertaken in one of the sixteen Southern states.

For the month of May the total of bond sales included in the general miscellaneous classification amounts to \$8,544,500; the state of Georgia comes first in this classification with a total of \$4,000,000. The purposes for which these bonds were voted include the building of various state institutions, court-

houses, municipal structures, hospitals, electric light and power plants and other developments of this character. Next in point of value to the miscellaneous classification comes the amount devoted to bond issues for road and bridge building, street paving and improvements, with a total of \$7,767,000; in this classification Florida comes first with \$2,623,000, and South Carolina second with \$1,907,000.

For the erection of school buildings the May total is \$6,173,400, and in this classification Oklahoma stands at the top with a total of \$1,995,000.

For the building of sewers, the construction of waterworks, for drainage developments, harbor work and irrigation projects, the total is \$7,380,200. Three states are chiefly represented here, Missouri, first, then Texas, followed by Arkansas.

The accompanying tables show by states and by classification the bond issues for the month of May together with a summary of the totals for the first five months of this year.

SUMMARY OF BOND ISSUES, BY NUMBER, BY CLASSIFICATION AND BY STATES
May, 1923

		Roads	Schools	Sewers	Miscellaneous	Total Issues	Total Value	
Alabama	4	\$539,500	1	\$100,000	3	\$285,000	8	\$924,500
Arkansas	1		2	\$1,542,700	2		2	1,542,700
Florida	4	2,623,000	3	180,000	2	325,000	9	3,128,000
Georgia	1	150,000	2	525,000	1	4,000,000	4	4,675,000
Kentucky	1		1	100,000	1		1	100,000
Louisiana	4	425,000	3	580,000	1	45,000	8	1,050,000
Maryland	3	112,500	2	91,000	1		5	203,500
Mississippi	2	42,000	3	187,500	2	175,000	8	514,500
Missouri	11		11	702,000	3	537,500	18	4,157,500
North Carolina	4	470,000	8	585,000	13	1,860,000	25	2,915,000
Oklahoma	2	395,000	2	1,995,000	4		4	2,390,000
South Carolina	6	1,907,000	3	565,000	2	80,000	15	2,748,000
Tennessee	1	100,000	2	125,000	3	797,000	6	1,022,000
Texas	2	133,000	4	353,900	7	2,615,000	15	3,150,900
Virginia	3	670,000	3	175,000	1	23,500	2	275,000
West Virginia	1	200,000	1		1		1	200,000
MAY	37	\$7,767,000	46	\$6,173,400	20	\$7,380,200	35	\$8,544,500
APRIL	36	5,119,050	30	2,571,300	19	3,097,000	30	14,612,300
MARCH	30	3,589,000	29	4,394,000	24	4,763,000	41	5,101,892
FEBRUARY	31	10,965,750	22	1,799,000	15	2,543,500	23	4,893,316
JANUARY	16	2,996,000	17	2,026,700	6	505,000	22	15,304,300
TOTALS	150	\$30,436,800	144	\$16,964,200	84	\$18,288,700	151	\$48,456,308
							529	\$114,146,000

First Five Months, 1923

	Roads	Schools	Sewers	Miscellaneous	Total Issues	Total Value
Alabama	10 \$1,085,750	3 \$125,000	3 \$340,000	8 \$980,000	24	\$2,530,750
Arkansas	5 430,500	3 118,000	3 1,942,700	3 201,000	14	2,692,200
Florida	13 4,728,000	6 530,000	5 850,000	15 2,522,922	39	8,630,922
Georgia	3 375,500	5 612,000	1	3 4,076,000	11	5,063,500
Kentucky	4 572,000	3 312,000	4 264,000	3 1,105,000	14	2,253,000
Louisiana	11 1,759,000	11 1,052,000	4 271,000	6 390,000	32	3,472,000
Maryland	7 776,500	3 662,000	4 1,041,000	6 8,509,000	20	10,988,500
Mississippi	14 1,810,500	13 1,197,500	6 1,045,000	6 617,000	39	4,670,000
Missouri	2 350,000	26 3,597,000	9 3,366,000	9 1,711,500	46	9,024,500
North Carolina	14 1,415,000	19 1,537,500	7 890,500	35 14,562,000	75	18,405,000
Oklahoma	4 895,000	7 2,441,800	3 120,000	3 166,800	17	3,623,600
South Carolina	13 2,557,000	10 957,500	5 705,000	11 1,049,000	39	5,268,500
Tennessee	7 883,000	8 1,060,000	2 425,000	10 2,081,800	27	4,449,800
Texas	28 5,150,550	19 1,676,900	26 6,702,000	25 6,400,286	98	19,929,736
Virginia	11 2,118,500	7 935,000	3 326,500	8 4,084,000	29	7,464,000
West Virginia	4 5,530,000	1 150,000	1	1	5	5,680,000
TOTALS	150 \$30,436,800	144 \$16,964,200	84 \$18,288,700	151 \$48,456,308	529	\$114,146,008

Permanent Organization to Work for More Industries for State of Georgia.

Atlanta, Ga., May 29—[Special.]—More than \$50,000 a year will be spent by the Georgia Industrial Bureau, as the permanent organization of Georgians, Inc., will be called, in selling Georgia to industrial interests of the North and East. Funds for carrying on this work will be secured by subscriptions from industries in the state, and will be used to attract outside capital to Georgia.

At present more power is being developed in Georgia, particularly in North Georgia, where several new dams and hydro-electric power plants are being built by the Georgia Railway and Power Company, than can be used by the cotton mills and other factories in the section, and the present movement is an attempt, largely backed, of course, by the Georgia Railway and Power Company, to induce other in-

dustries to come into the state so that this power can be utilized to the best advantage.

Just what means will be taken to attract outside capital has not, as yet, been completely worked out by the organization, but it is probable that national advertising will be conducted, and books and pamphlets printed showing the industrial possibilities of the state as the first step in the program.

Paul Brown, of Albany, Ga., is the president of the organization, Hal M. Strayer, of Macon, first vice-president, and P. S. Arkwright, of Atlanta, chairman of the executive committee. W. W. Beck, of Atlanta, has been selected as temporary secretary of the bureau.

This organization is entirely separate from the Georgia Association, which was formed a number of years ago for the purpose of developing the agricultural and industrial possibilities of the state, and is interested only in securing new and outside capital and industries for Georgia.

Southern Water Power Conference at Asheville This Month.

The second annual meeting of the Southern Appalachian Water Power Conference will be held in Asheville, N. C., on June 25-27. The meetings will be held at the Battery Park Hotel.

Secretary J. A. Switzer, Knoxville, Tenn., announces that a program is being arranged of great interest to everyone who cares for the upbuilding of the South.

A plan of permanent organization has been formulated by the Executive Committee which is to be submitted for the consideration of the Conference, whereby the Conference may become a definite and potent force for good.

The objects to be attained may be set forth as follows:

(1) To effect a more harmonious relation between public utilities, public service regulatory bodies, and the general public. (2) For the dissemination of accurate and reliable information relating to the power industry in the South. (3) To provide a clearing house for accurate information relative to locations of developed and of undeveloped power, and to supply such information to industrial and commercial organizations, engineers, bankers, etc. (4) To provide a means of compiling information relative to the scientific facts needed in the development of the natural resources of the South. The permanent organization would employ a skilled director and an adequate personnel, all responsive to the wishes of the Conference.

The following officials are members of the Executive Committee: Wilbur A. Nelson, chairman, state geologist of Tennessee, Nashville; Joseph Hyde Pratt, president, Director North Carolina Geological and Economic Survey, Chapel Hill; Lincoln Green, vice-president, vice-president Southern Railway, Washington; J. A. Switzer, secretary, Hydraulic engineer, Knoxville; Thorndike Saville, treasurer, hydraulic engineer, Chapel Hill; J. S. Holmes, chairman Commission on Forestry Relations, Chapel Hill; Clement S. Ucker, chairman Finance Committee, Director of Development Seaboard Air Line Railway, Savannah; P. A. Tillery, chairman, Committee on Legislation, vice-president Columbia Railway & Navigation Co., Columbia; and H. L. Wills, chairman, Committee on Energy Supply, manager Georgia Railway & Power Co., Atlanta.

Lumber Prices and Prospects in Baltimore.

The consensus of opinion among many lumber dealers in Baltimore on prices and prospects is about as follows:

"General building and construction costs in 1923 average about 115 per cent higher than in 1914. During the boom of 1920 the cost of building was about 157 per cent higher than in 1914. In 1922 the average cost of building construction was about 90 per cent higher than in 1914. With a building program estimated at \$5,000,000,000 the country's average construction cost is about 20 per cent higher than in 1922, but it is about 42 per cent lower than the high prices of 1920.

"Lumber today is selling about 35 to 40 per cent higher than it did one year ago. But during the slump prevailing in 1921-22 prices were confiscatory, many small lumber producers and dealers being forced to go out of business. At that time, for instance, certain grades of lumber selling wholesale at \$47 a thousand feet in 1920 dropped to \$17 a thousand, which was absolutely below the cost of manufacture aside from the cost of handling, freightage, and storage. Therefore, considering the supply and demand for lumber with the increased cost for labor entering into all the ramifications of its production and distribution, present prices are said to be fair. On the average all grades of lumber in Baltimore are selling wholesale at about 47 per cent less than in 1920. During the boom of 1920 certain grades of lumber were selling at \$75 a

thousand, today the same lumber can be bought for \$35. Box lumber wholesale is selling in Baltimore at about \$31 per thousand against a price of \$47 a thousand in 1920. These prices are of course at wholesale.

"Lumber at retail in small quantities sells at from 35 to 50 per cent higher than lumber in large or car lots. Increased labor costs of manufacture and handling charges, storage, insurance, and haulage charges all enter into the increased price of lumber at retail in small lots. Increased cost of timber lands, increased taxes, increased labor charges all along the line are the contributing factors in increasing the cost of lumber to the ultimate consumer, the main item in the increased cost being of course due to labor's higher rate of pay. The main reason for the relatively greater increase in cost of lumber in small lots is that the cost of haulage of several hundred feet is practically the same as in hauling larger quantities and for that reason retail dealers are compelled to charge more for these small orders.

"Wholesale dealers are well stocked in Baltimore. The supply of lumber here now is adequate, with lumber in good demand. While there is some reported stoppage of contemplated building operations, the amount of work under way and under contract is thought to be sufficient to furnish a good lumber market for some time. School building is active and the building of homes continue unabated. In fact home building throughout the country seems to be going ahead steadily."

Retail prices of lumber in different parts of the city on various grades of lumber in minimum lots of 1000 feet, are published below. In smaller quantities an additional charge of about \$5 per thousand is made by some dealers.

Lafayette Mill & Lumber Co.	Box 6"	\$45.00	per thousand.
	8"	46.00	" "
	10"	47.00	" "
Cull sheathing		44.00	" "
Low grade		35.00	" "
Atlantic Mill & Lumber Co.	Box 6"	\$40.00	per thousand.
	8"	40.00	" "
	10"	40.00	" "
Cull sheathing		\$42.00 to 45.00	" "
Flooring, flat grain, No. 1		80.00	" "
Flooring, edge grain		115.00	" "
Canton Lumber Co.	Box 6"	\$46.00	per thousand.
	8"	46.00	" "
	10"	47.00	" "
Cull sheathing		45.00	" "
Flooring, flat grain		88.00	" "
B and better edge		118.00	" "
Chesapeake Lumber Co.	Box 6"	\$40.00	per thousand.
	8"	40.00	" "
	10"	40.00	" "
Cull sheathing		37.50	" "
	8"	40.00	" "
Flooring, flat grain, No. 1		80.00	" "
No. 2		50.00	" "
B and better edge grain		120.00	" "

Site Secured for Plant to Manufacture Pottery.

Dallas, Tex., May 31—[Special]—The Dallas Pottery Company has purchased seven and one-half acres of land at Love Field, adjacent to Dallas, as a site for a plant for manufacturing various kinds of pottery. It was stated by Taylor Jackson, manager of the company, that full equipment of modern machinery will be installed. The clay to be used in the new pottery works will be shipped from East Texas unless a better field is developed near Dallas. For the present the plant will only attempt to handle crockeryware, such as churns, flower pots and crockery bowls, and fine art ware, such as fine vases and novelties.

Texas now manufactures only about 50 per cent of the pottery the State uses. Mr. Jackson said, and it is the plan of the new company to make this other 50 per cent, as well as furnishing the entire Southwest. The company has not yet been incorporated.

Gonzales County, Texas, will receive bids until June 12 to grade, drain and gravel surface, 3.66 miles of road on Section B, Highway No. 29. Information may be obtained from J. G. Irby, County Engineer at Gonzales, Tex.

Destructive Pink Boll Worm Gains Foothold in Western Texas.

Austin, Texas, June 1.—[Special.]—According to reports of inspectors of the State Department of Agriculture the trend of encroachment of the pink cotton boll worm is toward the west and northwest. It is asserted that the pest this season has infested the cotton growing areas of the upper Rio Grande border and New Mexico. Fears are entertained that it may reach the cotton growing region of the Salt River Valley of Arizona and the Imperial Valley. The pink boll worm is said to be the most destructive pest known to the cotton industry. It first made its appearance in a few scattered areas of Texas a few years ago, having been brought over in shipments of cotton seed from Torreon, Mexico. Through energetic methods conducted by the United States Department of Agriculture in co-operation with Texas State authorities the pest was eradicated in the localities where a few specimens had been seen.

In a statement just issued by the State Department of Agriculture it is declared that the western cotton areas are generally infested with the pink boll worm and have been placed in the regulated and non-cotton zones. The eastern areas, the report says, are comparatively free, having been effectively treated with eradication measures under direction of the State department.

In the western areas the pink boll worm is present immediately across the Mexican border and in New Mexico, thus eliminating any hope that these areas can be made free while the worm flourishes in such proximity. A non-cotton zone acts as a buffer between the western cotton regions of the State and the main cotton growing belt of the central and eastern portions of the State.

El Paso Valley, where cotton is grown under irrigation near the Rio Grande, through El Paso and Hudspeth counties; the Big Bend area, a strip of irrigated river land along the border, and the Pecos Valley area, in the growing sections of Ward, Reeves and Pecos counties, inspectors of the State Department of Agriculture found infested with the worm in large numbers. In the Big Bend section nearly all fields are affected, the summary states.

In the eastern areas the ravages of the boll worm have diminished. Hearne has been released from all restrictions as the result of the cleaning out there; the Trinity Bay section is reported in good shape, the non-cotton zones having been released for 1923; the spread of the weevil in the Ennis section, which threatened in 1921, has been checked, and although regulations are still in force, the non-cotton zone has been raised for 1923, and at Marilee, on the Collin-Grayson County line, similar remedies have been applied, with the same results.

As a means of combating spread of the boll worm, the State Department of Agriculture has developed a method and has designed machinery for treating seed as a continuous process of ginning, which kills all the worms and in no way injures the seed. Besides, the expense is so small as to be negligible, and the State bears none of the cost. The machines are equipped with thermographs, making it possible for one state man to look after all the machines in a district. In the fall of 1922 about 28,000,000 pounds of cotton seed were disinfected in Texas.

Norfolk Makes Only Bid for Entire Army Base.

Washington, D. C.—Bids recently opened by the War Department for the army base at Norfolk, indicate that the City of Norfolk submitted the only bid for the entire property. This amounted to \$5,000,000. Norfolk also presented three other bids, all of which carried varying conditions as to the delivery of the property and improvements, terms of payment, etc. The lowest bid submitted by the city was \$3,950,000.

Large Increase of Facilities Planned by the Alabama Power Company.

The annual report of the Alabama Power Company for 1922, an exceedingly interesting and impressive document, has been appropriately printed and bound in artistic style for distribution to the stockholders. Among other things it contains a complete account of the work done at Mitchell Dam on the Coosa River, the story of which, with illustrations, was told in the MANUFACTURERS RECORD of November 30 last. President Thomas W. Martin says that during the year the company extended its facilities by enlarging and adding to its generating plants, substations and transmission lines, the most important work being the Mitchell Dam, which was finished and the water allowed to flow over the dam in December. This structure contains more than 200,000 cubic yards of concrete, of which 189,000 yards were placed last year. The entire submerged area was cleared of trees and brush and everything was done to eliminate malaria and other diseases. Over 100,000 small fish were placed in the reservoir to destroy mosquito larvae. There was a well-equipped hospital at the construction village. Capacity of the system was also increased by leasing the steam plant of United States Nitrate Plant No. 2 at Sheffield, Ala.; this added 50,000 horse power generating capacity. The capacity of the Gadsden plant was also increased. A large capacity transmission line with steel towers was built from Lock 12 to Mitchell Dam, 12 miles, to distribute electricity from there. Construction of 39 miles of transmission line from Lock 12 to Leeds, Ala., and of 16 miles from Leeds to Fulton Springs is under way. An additional outlet from Mitchell is being provided by building 80 miles of transmission line to the Opelika district. Some other transmission work is also in progress. Besides, over 65 miles of transmission lines were completed in 1922.

Construction of four dams on the Tallapoosa River in Alabama is projected and an application was filed last August with the Federal Power Commission for a preliminary permit. This plan looks to creating a total capacity of not less than 200,000 horse power. The permit requested was granted in January and preliminary engineering and surveying are now in progress. Plants are to be built on the Tallapoosa to store the flood waters and operate in connection with other power developments of the company, thus obtaining full benefits from the stored water supply.

Referring to the increasing demands for power for new industries as well as for existing plants the report says that Alabama is rapidly becoming the manufacturing center of the South and will continue in proportion to the development of a dependable source of power at reasonable rates. To put the natural and other advantages of the state before the attention of other sections the commercial department of the company has, it is stated, developed employees trained in the location of industries and whose duties are to promote such development. This department has made an industrial survey of a large portion of the state and has gathered data of value to industries that contemplate locating in Alabama. This activity is backed by a national advertising program which has resulted in investigations by officers of many large plants of different kinds seeking new locations, and some have been followed by location of plants. A radio station and moving picture shows are also utilized by the company to present the advantages in its territory.

The report embodies a complete account of the offer made to the Government by the company for the completion of the Muscle Shoals dam.

Gross earnings of the company for 1922 were \$5,865,906, an increase of more than 25 per cent as compared with 1921. Net earnings from operation were \$2,750,721 and net income for the year, \$1,480,917.

Government Allows Cotton Exporters, for Reasonable Period, to Define U. S. Standards in Terms of Foreign Equivalents—Cotton Representatives from England on Way to America to Negotiate With Government.

The United States Cotton Standards Act will become effective on August 1, 1923. It requires in interstate and foreign commerce the observance of the official cotton standards of the United States in all transactions based on standards, and prohibits the use of any other standards of classification.

Because of the fact that a large part of the export business in this country in cotton has been based on Liverpool and other foreign standards of classification, which are somewhat different in terminology and meaning from the official cotton standards of the United States, many foreign buyers of our cotton are not thoroughly familiar with the American standards and must be informed as to their meaning and application. It was the view of exporters that it may be necessary, during the coming crop season, for American exporters to define our standards in terms of their equivalents in Liverpool and other recognized foreign standards and to guarantee that shipments on American standards shall equal the specified foreign equivalents.

Therefore, assuming that the Liverpool and other foreign associations will promptly agree upon universal standards, the Department sees no objection to this practice for a reasonable period of transition, certainly not beyond the coming crop year, in order to facilitate compliance with the new law.

The Liverpool Cotton Association, the Manchester Cotton Association, and the Federation of Master Cotton Spinners Associations, are sending nine representatives between them as part of the delegation to America to negotiate a better arrangement with regard to the provisions of the Cotton Standards Act which comes into force in the United States on August 1st. Continental Exchanges are in full sympathy with the movement, but owing to lack of time to make their own arrangements they are leaving their interests in the hands of representatives of Lancashire. Lancashire believes that it is entitled to be consulted with regard to the grading of cotton for it knows what divisions are most convenient to the trade here. The delegation will be purely friendly and the meeting will doubtless take place upon the arrival of the Lancashire delegates at Washington.

STEADY INCREASE IN SOUTHERN INDUSTRIAL AND BUILDING ACTIVITY.

Nearly 400 More Items Published in May Than in Corresponding Month of 1922.

Industrial developments and construction activity show a steady increase in the sixteen states of the South as indicated by the news items published in the DAILY BULLETIN and in the construction department of the MANUFACTURERS RECORD each week. For the month of May the total of these notices, including the financial items and machinery, proposals and supplies wanted is 5577 as compared with 5189 for May 1922. The total for the first five months of this year is 25,021, comparing with 24,244 for the five months from January to May, inclusive, 1922.

Under the classification of industrial developments, road and street construction ranks first with a total of 829 items for the month and a total of 3684 items for the first five months of 1923. Under miscellaneous enterprises 232 items appeared in May and 980 for the five month period; miscellaneous factories show 226 items with 1042 for the first five months.

In the buildings news the items on dwellings come first as

usual with a total for May of 377, school construction coming second with 335 separate items.

There were 560 notices in the financial news columns telling of new corporations formed and giving details about new issues of public securities.

The items about firms and individuals in the market for machinery, proposals and equipment of various kinds totaled 727 for May and 3498 for the five month period.

The table herewith shows the number of items under each classification for the 30-day period just passed and from January to May, 1923.

	Totals for May	Totals for January May (Inc.)
Industrial Developments		
Airplane Plants, Stations, etc.	0	3
Bridges, Culverts, Viaducts	219	1098
Canning Plants	21	100
Clayworking Plants	15	62
Coal Mines and Coke Ovens	45	216
Concrete and Cement Plants	8	43
Cotton Compresses and Gins	41	106
Cottonseed Oil Mills	4	14
Drainage Systems	10	51
Electric Light and Power Plants	77	366
Fertilizer Plants	6	34
Flour, Feed and Meal Mills	12	96
Foundry and Machine Plants	23	146
Gas and Oil Developments	100	424
Ice and Cold Storage Plants	18	167
Iron and Steel Plants	3	11
Irrigation Systems	3	11
Land Developments	212	861
Lumber Manufacturing	72	330
Metal-Working Plants	24	129
Mining	32	120
Miscellaneous Construction	45	205
Miscellaneous Enterprises	232	980
Miscellaneous Factories	226	1042
Motor Cars, Garages, Tires, etc.	109	600
Railways	8	39
Railway Shops, Terminals, Roundhouses, etc.	6	20
Road and Street Construction	829	3684
Sewer Construction	96	410
Shipbuilding Plants	2	8
Street Railways	1	1
Telephone Systems	10	84
Textile Mills	65	294
Water-Works	100	458
Woodworking Plants	37	259
	2711	12,472
Buildings		
Apartment Houses	79	335
Association and Fraternal	45	154
Bank and Office	68	346
Churches	160	642
City and County	36	167
Courthouses	10	40
Dwellings	377	1492
Government and State	10	33
Hospitals, Sanitariums, etc.	42	173
Hotels	70	340
Miscellaneous	40	180
Railway Stations, Sheds, etc.	11	64
Schools	335	1171
Stores	145	683
Theatres	16	62
Warehouses	25	169
	1469	6051
Financial		
Corporations	100	460
New Securities	460	1749
	560	2209
Machinery, Proposals and Supplies Wanted		
	727	3498
TOTALS	5467	24,230
Fire Damage		
	110	791
	5577	25,021

Contract Let for \$325,000 Building in Dallas.

Dallas, Tex.—Contract has been let to Henger & Chambers of this city to erect the 8-story and basement office building here which Mike H. Thomas will build at a cost of \$325,000. The structure will be fireproof, 48 by 160 feet, of reinforced concrete and brick with stone trimmings. It will be designed and equipped with especial reference to the cotton trade interests and among the facilities to be installed will be cotton chutes.

Anton F. Korn, Jr., of Dallas, is the architect, and R. C. Newcomb, also of Dallas, has contract for excavation and foundation.

The Problem of Mexican Labor in the United States.

San Antonio, Tex., May 23—[Special.]—More than 450 Mexican laborers and their families who were under contract to be shipped to the beet sugar fields of the Michigan Sugar Company at Saginaw, Mich., balked when an attempt was made to load them into motor trucks at San Antonio and send them by that means of transportation as far as Waco, 185 miles. They refused to go by any other means than special train and made an appeal to Ismael Magana, Mexican consul here. He said that in the case of the Michigan Sugar Company he had signed no contract governing the employment of Mexicans as was done with the Bethlehem Steel Company of Bethlehem, Pa., recently. He stated that in having agreements signed between the consulate and employing companies, it is his intention to save both the American and Mexican governments large sums of money. A large percentage of the Mexicans now in this country, he explained, are here illegally and subject to deportation. Such action, he said, would cost each of the countries hundreds of thousands of dollars. To stop the influx of Mexicans to this country, due to the nature of the border countries, Mr. Magana said, is a problem that can hardly be met at this time. Since they continue to come to this country, and since they seem to be in demand in many parts of the states, it is the idea of consular officials to make sure that they are not distributed over the entire country, to eventually become public charges, in which case exportation at an enormous expense would be the only course open. With this in mind it is Mr. Magana's plan to have return transportation guaranteed to all Mexican laborers taken out of Texas and other border states.

With regard to talk of a threatened labor shortage in Texas during the coming cotton picking season, Mr. Magana is of the same opinion as W. H. Wallace, general manager of the Michigan Sugar Company who in a statement Monday said that the Mexican laborers taken out of the South for work in the beet fields, are "but a drop in the bucket." Mexicans are daily coming into this country by the thousands, Mr. Magana said, and there is little danger of there not being enough to harvest the coming crop.

A reverse of this is predicted in a statement made by J. M. Denton of Austin and M. A. Dominguez of San Antonio, representatives of the State Department of Labor, who have gone to the lower Rio Grande valley for the purpose of making a study of the situation there. In their opinion, the exodus of Mexican labor to the industrial centers of the North and East is a matter of grave concern to all parts of the State. They say that, though there are thousands of Mexicans crossing the border points, most of them are being employed by Northern concerns instead of remaining in Texas as in previous years.

A report that labor is being recruited for this purpose in border towns by representatives of labor agencies who recruit for a fee and transport the labor by truck, will be investigated, they said, and a relentless war against the practice inaugurated.

\$375,000 Chemical Laboratory for Rice Institute.

Houston, Tex.—Rice Institute will build immediately a new chemical laboratory at a cost of \$375,000. The building will be of brick and limestone, similar to the other buildings of the Institute, 3 stories and basement and of fireproof construction. Bids will be received about June 25. William Ward Watkin of Houston is the architect in collaboration with Prof. H. B. Weiser, in charge of the chemistry department of the Institute.

The building will contain 12 large laboratories, 16 small laboratories and research rooms, 7 class rooms, 3 large lecture rooms, amphitheater, 2-story store room and vault for chemicals. It will be provided with elevators and lifts.

The Moving Picture Plan for Saving the Nation from Bolshevism.

Pascagoula, Miss., May 25.

Editor Manufacturers Record:

I have recently glanced over the article in your issue of May 3 on the utilization of the moving picture to combat radicalism and it is a movement to which I can give my heartiest support. It is a timely—though a rather belated movement in the right direction. In one of my war articles in the *MANUFACTURERS RECORD* I made the statement that education is the most powerful force known for the making or warping of the human mind and many a night as I have sat watching the shadow drama (I am a movie bug) I have asked if the conservative element of this nation fully realized what a tremendous force was here for directing the intellectual and moral energies of the people—and that should it come under the control of a class hostile to American institutions it would make it master of the world.

In a speech before the OST Association at Gulfport, August, 1922, I said: "A writer in *Blackwoods' Magazine* for September 1854, says: 'My ideal of a village is one that has a long, broad highway running through its center, and a church at one end and a theatre at the other.'

"Those three things," I continued, "are essential factors of civilization, and today the three things that are bringing on a social and moral revolution in this nation are the motor car, improved highways and the moving picture. We may not like the direction that this revolution is moving, but unless we are willfully blind we must see that it does exist."

The question now is, shall we take advantage of this revolution and properly direct or by standing in its way be overwhelmed by it? To relate the tremendous influence that the drama has had in the development of civilization would lead us too far afield—and would require more space than you could give to it.

On the 27th day of April, 1784 Beaumarchais gave the first public performance of his drama, *Le Mariage de Figaro*, which afterwards became the subject of Mozart's opera, and its wit and ridicule delighted the courtiers—all save the king, who had clearer penetration than the members of his court, and he protested that it was an indictment of the Bourbon regime in France. The priests and nobles laughed heartily and a few years later they were still laughing—but it was ghastly mockery of the terror of death.

On the 30th day of April, 1923, I sat in a moving picture theatre and the first reel showed Louis XV of France driving his subjects across the Atlantic because they dared to assert their independence and defend themselves against the lawlessness of the King's officers. The second reel had not gone half way when I saw that the drama before me was another *Mariage de Figaro*, and on the following day wrote my daughter that: "The scars of jealousy is an indictment of the racial intolerance and lawless law enforcement of law in the South as was the *Le Mariage de Figaro* an indictment of the regime of Louis XVI and is destined to play as important a role in the history of this country as Beaumarchais's drama did in the history of France. It is the lightning flashing and quivering in the dark northern sky, telling us that an hurricane is in the Gulf."

Early in the year of 1918 I began to publish in the *MANUFACTURERS RECORD* a series of articles warning the nation of the rapid growth and danger of radicalism in this nation, that had about as much effect as if I had whistled to a Norwester. "Great editors" and "famous correspondents" and "eminent divines" cackled like a lot of superannuated roosters, proclaiming that such an idea was ridiculous, and they are still cackling, but their cackle has a raucous croak.

CHAS. E. CHIDSEY.

Six Tennessee Banks Merge—New Institution Organizes With \$500,000 Capital.

Nashville, Tenn.—The merger of six Tennessee banks has been effected here by the organization of the Commerce Union Bank, capitalized at \$500,000. The new bank will maintain its main offices in Nashville, using the quarters now occupied by the Farmers & Mechanics Bank. Institutions in the merger include the Farmers' & Merchants' Bank of Nashville; American National Bank of Sparta; Union Bank & Trust Co. of Lebanon; Spring Hill Bank, Spring Hill; Lawrence Bank & Trust Co., Lawrenceburg, and the Farmers' Bank & Trust Co. of Springfield. An office will also be opened at Gallatin, Tenn.

Each subordinate bank will be under the supervision of the board of directors of the new institution, although executive officers of each of the seven banks will conduct the business of the individual banks in connection with the local boards of managers.

Officers of the Commerce Union Bank will include A. E. Potter, president; Edward Potter, Jr., first vice president; Joe S. Boyd, Nashville; John H. Potter, Sparta; J. E. Powell, Springfield; J. A. Giles, Lawrenceburg; E. H. Ayers, Spring Hill, and Walter Baird, Lebanon, vice presidents.

The officers in charge of the several banks are, Nashville, Edward Potter; Sparta, John H. Potter and L. E. Tubb; Lebanon, J. J. Askew and Walter Baird; Spring Hill, E. H. Ayers and E. H. Ayers, Jr.; Lawrenceburg, James D. Vaughan and J. A. Giles; Springfield, W. A. Powell and J. E. Powell; Gallatin, Hubert Hagin.

Georgia Public Service Corporations Report Prosperous Year—Accidents Decrease.

Atlanta, Ga., May 31—[Special.]—According to the annual report of the Georgia Public Service Commission, just made public, 1922 was a year of increased prosperity for the majority of public service corporations in Georgia.

Reports received from more than 300 companies, including 42 street railway companies, 52 steam railroads, 91 telephone companies, 15 cotton compress companies, two express companies, two telegraph companies and five terminal companies showed a steady increase in earnings over last year.

Railroad companies operating in the state showed gross earnings of \$86,609,297.21 with operating expenses of \$74,918,343.88. Telephone companies reported gross earnings of \$7,213,444.92 and operating expenses of \$5,286,841.09. Telegraph and express companies showed gross earnings of \$3,324,181.25 and operating expenses of \$3,297,361.26. And street railway, gas and electric companies showed gross earnings of \$24,543,331.59 with operating expenses of \$15,027,958.88.

The number of accidents during the year was materially decreased, the steam railroads going through the year without killing a single passenger. Not a single passenger or employee was killed in a street railway accident in Georgia during 1922, only 904 passengers being injured.

Will Develop Dolomite Deposit in Florida.

In a letter to the MANUFACTURERS RECORD, relative to the development of a deposit of dolomite in Calhoun County, Fla., L. N. Smith, general freight and passenger agent of the Marianna & Blountstown Railroad Co., Marianna, Fla., writes:

"Recently there has been discovered in Calhoun County, a deposit of dolomite analyzing magnesium carbonate 30.25 and calcium carbonate 44.94 per cent. The Georgia-Florida Orchard & Packing Co. of Thomasville, Ga., is developing this deposit which it estimates to be several million tons. As shown by the analysis the material is a soil neutralizer and vitalizer. When used on sandy soil it has the effect of giving body and vitality thereto and making all fertilizer elements of the soil available as a plant food. When applied

to stiff soil it has a pulverizing effect. The natives of West Florida living in the immediate vicinity of this deposit have for the past several years applied it to their growing crops with most satisfactory results, it being especially adapted to vegetable and citrus fruits as well as the staple products of the farm.

"The exploiters of the deposit propose to sell it on a moderate profit basis which will enable the farmer to use it in large quantities.

"West Florida has within the past few years succeeded in growing Satsuma oranges and to the extent that they no longer fear any loss from cold and there is a great movement toward making this industry in West Florida equal if not exceed the round orange industry of South Florida and the discovery of the deposit referred to will aid materially in accomplishing this. W. H. Baxley of Blountstown, Fla. is the president and general manager of the developing Company."

Higher Wages Indicate Increased Prices.

Increased cost of production on account of higher farm wages resulting from shortage of farm labor now confronts the agricultural industry, according to the Agricultural Department. The effect of such a situation is normally in the direction of higher prices for farm products or curtailment of production, or both. The Department points out, however, that it is still so early in the season that definite forecasts regarding either supply or demand cannot be made.

The general industrial situation is receiving considerable attention by the Department in charting the prospective demand for agricultural products. Competitive bidding for labor and materials, and strikes in the textile and building industries, suggest that the industrial boom may be entering the phase of highest costs, the Department says. The building boom has already received some preliminary shocks in the shape of strikes and suggested curtailment of credit.

Contract Let for \$500,000 Hotel for Miami.

Miami, Fla.—Mrs E. C. McAllister has awarded contract to the George W. Langford Co. of Louisville, Ky., and Miami, for the erection of a 9-story apartment hotel here to cost about \$500,000. The building is to be of the Moorish type of architecture and will be of reinforced concrete with tile curtain walls. It will measure 100 by 140 feet on the street floor and 65 by 135 feet above. Marble and tile will be used for the floor of the first story and the corridors of the upper stories will have floors of cork and tile over marble. Two high speed elevators will be installed.

Frank V. Newell of Miami is the architect.

Enlargements Planned for Plaster Mills.

Quanah, Tex., June 1—[Special.]—Formal transfer of the Acme Cement Plaster Mills at Acme, near here, has been made by Sam Lazarus of St. Louis and associates to the Certainteed Products Corporation of New York. There has been filed in the county clerk's office here a deed of trust made by the Certainteed Products Corporation in favor of Walter S. Klee, trustee. This document secures an issue of \$8,000,000 of first mortgage bonds. It is stated that the new owners of the cement and plaster mills will make enlargements of the plant and increase development operations generally.

Will Build Plant to Make Lead Pipe.

San Antonio, Tex., June 2—[Special.]—William A. Burr of Monterey, Mexico, and associates plan to construct a plant here for the manufacture of lead pipe with a daily capacity of ten tons. Mr. Burr stated that the company which is being organized will have a capital stock of \$100,000. San Antonio is well located with reference to the position of lead mines both in this country and in Mexico, and will be a good distributing point for the finished product. The plant will use lead bullion from Mexico and most of the Mexican lead will come already smelted through use of small lead furnaces.

THE IRON AND STEEL SITUATION

No Real Change in Steel Situation But Improved Sentiment Is Manifest.

Pittsburgh, June 4—[Special.]—The week has brought no particular change in the steel trade as to production, prices or the volume of business done. It has brought an improved sentiment or undercurrent of thought, through the failure of unfavorable factors to develop.

What has occurred in the steel market is typical of what is reported from most lines of industrial activity, to the effect that men find that the conservative feeling that swept over business generally a few weeks ago is not followed by concrete developments of an unfavorable character. The industries of the country are running just as formerly. It might be said that men are now finding that they were "more scared than hurt."

When the steel market becomes easy after a period of intense buying activity, there are sometimes cancellations of old orders and postponement of deliveries. Sometimes the phenomenon is not shown. This is one of the times, thus far at least, when it is not. There may have been a few suspensions or postponements, but it is plain they do not amount to anything. Even the Ford suspensions of certain deliveries for the month of May have not produced a ripple. As to cancellations, none at all are reported.

The bearing of this negative development is that the steel mills are to be allowed a free rein in running on their momentum, the momentum created by well filled order books. The mills will fill not simply the orders now on hand, as there is considerable volume of new business coming in from day to day. In some cases this new business may amount to two-thirds or three-fourths of the outgo. Steel producers are of particularly sanguine temperament, for the simple reason that as a rule it is only men of sanguine temperament who enter the trade, but the result is that when orders run a little short of shipments the market is called dull. An order book of two or three months of operation will last a long time if constantly replenished fractionally.

Production of steel ingots in the first five months of this year was about 19,700,000 gross tons, or a trifle more than was made in the whole of 1921. In the first five months of 1920 production was about 17,400,000 tons, though the mills were then, as of late, endeavoring to operate at this highest rate possible. The increase of 13 per cent is due to the good physical conditions this year as compared with 1920, there being full transportation facilities, a fair supply of labor, in point of number, and much more efficiency on the part of labor.

A result of the heavier production and deliveries is that buyers of steel find themselves well supplied and do not have to go out and duplicate orders, as they were doing three years ago, on account of mills not meeting delivery promises.

Delivery premiums in finished steel products have now entirely disappeared from the market, the last products to show reasonably early delivery without a premium being hoops and galvanized sheets. Mill shipments in two or three weeks are not to be expected, of course, not being normal. Prices are now uniform, and at the same time they are firm, as follows: Bars, 2.40c; shapes and plates, 2.50c; hoops and bands, 3.30c; small hoops, 3.50c; merchant steel pipe, 62 per cent basing discount; black sheets, 3.85c; galvanized sheets, 5.00c; tin plate, \$5.50; plain wire, 2.75c; wire nails, \$3.00.

Probably the next change in the rate of steel production will be the decrease, due to warmer weather, that usually comes earlier in the year than this, for as a matter of fact March is ordinarily the month of heaviest production in the first eight months of any year.

Connellsville coke is easier again. Spot prices are unchanged at \$5.00 to \$5.25 for furnace and \$6.00 to \$6.50 for

foundry, but it has become probable that operators will not get the \$6.00 price on the bulk of their third quarter tonnage that appeared to be indicated by a few contracts made several weeks ago. The furnaces are holding out for lower prices, and have the alternative of buying in the spot market or from month to month instead of contracting for the quarter. It is understood that quotations below \$6.00 have already been made on third quarter coke.

In the Pittsburgh-Valley pig iron market, basic is unchanged from a week ago, at \$27.50, valley. Bessemer is down 50 cents to \$29, valley, and foundry and malleable grades are down \$1 to \$29, valley. With the declines from prices ruling a month and more ago, when all regular grades were at \$31, the market is approaching equalization between buyers and sellers, while with the lapse of time consumers are nearer the point at which they will have to buy, if only for prompt delivery, and thus pig iron promises increased activity within a short time.

Renewed Activity in Pig Iron Already Apparent in Birmingham District—Continued Bright Prospects.

Birmingham, Ala., June 4—[Special.]—The pig iron market will take on a renewed activity during this month. This is in evidence already with prospects very bright for full production and steady shipping of the product for the balance of the year. The new month was started with sales on the books which will cover the probable make through the third quarter, with a little tonnage accepted to October 1. Inquiries have been coming in which indicate that melters of iron will have to purchase quite liberally against fourth quarter probable make. Quotations are still firm on the \$27 per ton base, No. 2 foundry, furnace interests asserting that there are no reasons why concessions should be given. The production in May was extraordinarily heavy, the total figures being around the peak output at blast furnaces, more than 250,000 tons. For the present month, large production is expected.

Every iron melting concern in the Birmingham district and in the territory buying iron from the furnace interests of this state is going at maximum speed, the melt is heavy and the announcement is made by some of these interests that there is enough business in hand and already in sight to warrant active operation through the balance of the year. This is true so far as the cast iron pipe makers, pressure pipe plants, are concerned, lettings being received week after week which are adding steadily to the heavy business in hand now for several weeks. Pressure pipe is commanding strong prices and in some instances quick delivery is rewarded. The radiator plant continues on what is termed "120 per cent capacity." Other industries are going at full force and there is but little accumulation noted in any direction. The surplus iron on yards in this state is mostly basic iron, piled up by the two steel making companies. The foundry iron on furnace yards is practically nil. All iron and steel products, including pig iron, are being handled promptly by the railroads, the only complaint being that cars are not as numerous as desired in the mining circles and then as to the low side cars.

The Warrior river barge line is handling considerable traffic for the Birmingham industrial district. Not less than nine barges loaded with steel rail and other steel shapes were going down stream at one time during the past week, for export through the port of Mobile, while four or five barges loaded with manganese ore from Brazil were coming up the river, being imported through the port. In addition, two or three barges of sulphur from Texas were on the river coming to the heavy chemical plants of the district. Conference

will be held during the week by Col. T. Q. Ashburn, chief of the inland waterways of the government, with citizens of Mobile, Demopolis, Tuscaloosa, Birmingham, Cordova and other points interested in the Warrior river barge service.

The embargoes on merchandise and other traffic at the ports of Demopolis, Tuscaloosa and Cordova, (though coal and coke are still being handled through Cordova) may be lifted following the conference.

There is much significance in the fact that the Tennessee Coal, Iron & Railroad Company, is having built at Mobile, with steel fabricated in Birmingham, nine barges for use on the Warrior in handling steel products. Even with federal operation, the Tennessee Company will have barges at its command at all times and if there should come an emergency the corporation would be able to operate its own service. There is hardly any doubt but that the government will continue the operation of the barge line.

The only deflection noticeable in the Birmingham district this year has been in the coal mining section, steam coal demand being off to a great extent. The production of coal in Alabama has gone down to 366,000 tons a week. The maximum production was reached in March when a week's output was found to be 416,000 tons. Some of the railroads buying fuel in this district have placed contracts for their next 12 months needs and in every instance so far an increased tonnage was contracted for. The present conditions are far from encouraging.

The coke market is like the iron trade, much coke sold ahead and the conditions warrant no concessions. By-product and bee-hive 72-hour coke is commanding \$8.50 to \$9.50 per ton. Some little difficulty is being reported in the coke making circles by reason of the labor shortage. There is trouble in other circles but very little is being said about it. The large number of negroes already moved north and to the middle west and the continued exodus has made itself felt.

The scrap iron and steel market shows a little weakening. Quotations with one exception are off a dollar or two as compared to three weeks ago. No market is noted for heavy melting steel. Stocks are being kept in good condition. Dealers still assert they are to deliver on business in hand for at least two months yet. Scrap dealers are maintaining their large yard forces, indicating that they are hopeful for recovery at no late day.

Quotations for pig iron and iron and steel scrap follows:

PIG IRON

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$27.00; No. 2 foundry, 2.25 to 2.75 per cent silicon, \$27.50; iron of 2.75 to 3.25 per cent silicon, \$28.00; iron of 3.25 to 3.75 per cent silicon, \$28.50; iron of 3.75 to 4.25 per cent silicon, \$29.00; charcoal iron f. o. b. furnaces, \$34.00 to \$35.00.

OLD MATERIAL

Old steel axles	\$25.00	to	\$26.50
Old iron axles	28.00	to	30.00
Old steel rails	18.00	to	20.00
Heavy melting steel	17.50	to	18.00
No. 1 R. R. wrought	18.00	to	20.00
No. 1 cast	23.00	to	25.00
Stove plate	19.00	to	20.00
Old car wheels	22.00	to	23.00
Old tramcar wheels	23.00	to	24.00
Machine shop turnings	13.00	to	14.00
Cast iron borings	13.50	to	14.00
Cast iron borings (Chem.)	16.50	to	17.00

Iron Ore and Pig Iron Production for 1922.

Figures showing the production of iron ore and shipments of pig iron in the United States in 1922 have been issued by the Geological Survey. Considerably more iron ore was mined in 1922 than in 1921, the quantities being 47,128,527 gross tons in 1922 compared with 29,282,690 gross tons in 1921, or an increase over 1921 of 61 per cent. Iron ore production in the South in 1922 was 82 per cent more than the output of 1921. The Chattanooga and Birmingham districts made gains of 126 per cent and 73 per cent respectively, and the Lake Superior district made a gain of 58 per cent.

The average value per ton of iron ore at the mines in 1922 was \$3.12, which is 25 cents less than in 1921. The stocks of

iron ore at the mines in 1922 amounted to 10,524,279 gross tons, a decrease of 24 per cent from those in 1921.

IRON ORE MINED IN THE UNITED STATES IN 1921 AND 1922

State	1921 (Gross Tons)	1922 (Gross Tons)	Percentage of Increase in 1922
Alabama	2,876,141	5,234,568	82
California	2,064	3,204	55
Colorado	3,823	513	*87
Georgia	5,556	24,149	335
Idaho	799	200	*75
Massachusetts	4,100	.....	.....
Michigan	7,075,204	10,453,578	48
Minnesota	17,811,325	28,768,960	62
Missouri	36,550	58,408	60
Montana	26,174	21,726	*17
Nevada	268	51	*81
New Jersey	58,589	90,359	54
New Mexico	110,528	118,038	7
New York	469,988	444,381	*5
North Carolina	2,583	17,279	569
Pennsylvania	146,649	780,836	432
Tennessee	25,709	146,464	509
Texas	131	.....	.....
Utah	60,773	15,018	*75
Virginia	74,021	30,971	*58
Wisconsin	257,014	577,024	125
Wyoming	234,701	332,800	42
	29,282,690	47,128,527	61

* Decrease.

Gains in the shipments of pig iron in 1922 were recorded by every producing State except Virginia, Missouri, and Massachusetts. The increases were more pronounced in Kentucky, Tennessee, Michigan, Wisconsin, and New York. The general average value for all grades of pig iron at the furnaces in 1922 was \$21.98 a ton, a decrease of \$2.30 from the value in 1921.

PIG IRON SHIPPED FROM BLAST FURNACES IN THE UNITED STATES IN 1921 AND 1922, BY STATES.

State	1921 Gross Tons	1922 Gross Tons	Value	Value	Percent'e of Incr'se or decr'se
Quantity					
Value					
Alabama	1,241,227	\$30,195,978	2,223,159	\$42,883,424	79 42
Illinois	1,490,638	36,513,263	2,729,172	58,954,675	83 61
Indiana	1,655,275	36,945,411	2,191,356	43,064,817	32 17
Kentucky	28,375	816,372	140,217	2,951,627	394 262
Michigan	200,944	5,955,205	595,647	14,791,041	196 148
Missouri	17,028	479,957	(a)	(a)	(a)
New York	786,713	18,212,810	1,708,605	37,783,073	117 107
Ohio	3,649,835	88,473,082	6,756,648	149,805,909	85 69
Pennsylvania	6,072,196	148,350,285	9,732,024	221,581,288	60 49
Tennessee	21,972	595,850	95,326	2,063,376	334 246
Virginia	66,916	2,023,268	31,022	793,903	*54 *61
West Virginia	259,312	6,557,498	309,944	7,537,184	20 15
Wisconsin	93,666	2,730,155	209,289	4,970,227	123 82
Other States b	454,522	11,588,658	948,329	20,964,314	101 74
	16,038,619	389,437,792	27,670,738	608,144,858	73 56

* Decrease.

a Included under "Other States."

b 1921: Colorado, Connecticut, Maryland, Massachusetts, Minnesota, and New Jersey.

1922: Colorado, Connecticut, Maryland, Massachusetts, Minnesota, Missouri and New Jersey.

Alabama Power Company Rebuilding Tallassee Dam at Cost of \$500,000.

Birmingham, Ala.—Seven thousand additional horse power will be generated in Alabama with the completion of construction work on the upper Tallassee dam on the Tallapoosa river which is being rebuilt by the Alabama Power Company at a cost of approximately \$500,000. It is expected that the plant will be placed in operation in November.

Announcement by the Alabama Power Company that the Tallassee dam, destroyed by a flood in December, 1919, would be rebuilt, followed its acquisition of the properties of the Montgomery Light and Water Power Company in Montgomery. A transmission line to cost around \$250,000 is to be constructed between Montgomery and the dam a distance of about twenty miles.

When the work is completed the dam will be a structure of rubble masonry 620 feet long. Over 15,000 cubic yards of concrete will be used, it is stated. Future development of sites above the upper Tallassee dam will permit the impounding of water, and the regulation of the stream flow, to such a degree that it can generate approximately 40,000 horse power.

RAILROADS

Large Gains in Traffic and Net Earnings.

As compared with 1921 the annual report of the Nashville, Chattanooga & St. Louis Railway Co. for 1922 shows a decided improvement in the volume of freight traffic as well as in the earnings from operation, the number of tons of revenue freight handled having increased about 13½ per cent as compared with the previous year. Moreover, the net ton miles increased more than 22½ per cent, and in addition to that the net corporate income, which is calculated by taking into consideration revenues from all sources as well as expenses of every kind, including interest and fixed charges, was \$1,680,521 for the year as compared with a deficit of \$259,801 at the end of 1921.

President W. R. Cole also says that the average condition of the freight car equipment of the road was improved very greatly during the year and at the end thereof it was far better than at any other time since the Railroad Administration returned so much of the equipment in bad order. Despite the strike of shop employes the company was able, through the loyalty of its supervisory forces and a substantial nucleus of its older shopmen, to maintain its mechanical organization, with the result that operations during the period of the strike, although somewhat disturbed, were not seriously affected and the year closed with equipment of all kinds in good and substantially a normal condition.

The income account shows, comparing 1922 with 1921, as follows: Total operating revenues 1922, \$22,353,762; 1921, \$20,924,601; total operating expenses 1922, \$19,207,688; 1921, \$19,607,276; total operating income after deducting operating expenses, taxes and uncollectible revenue, 1922, \$2,709,083; 1921, \$758,638; gross income 1922, \$3,556,326; 1921, \$1,641,571; net income after deducting rents, tax accruals and interest on funded debt, 1922, \$1,680,521; 1921, \$259,801 deficit, the net income for 1922 therefore showing an increase of \$1,940,322.

To Improve Car Service.

E. J. Cleave, formerly with the Pennsylvania Railroad Co., have been appointed district manager of the car service division of the American Railway Association in New York, with headquarters at 30 Vesey Street, and he assumed his duties there June 1. This appointment is in line with the policy of establishing district headquarters here and there to secure closer co-operation between the shippers and the carriers, and thus enable the railroads to anticipate as far as possible transportation requirements. District headquarters were previously established in Birmingham, Dallas, St. Louis, Chicago, Cincinnati, Toledo and Minneapolis. The New York district includes practically all of that state, besides New Jersey and Delaware, the eastern half of Pennsylvania and the Eastern Shore of Maryland and Virginia.

Line to Be Rehabilitated.

The Muscle Shoals, Birmingham & Pensacola Railway Co., which has succeeded to the control of the Gulf, Florida & Alabama Railway running from Pensacola, Fla., to Kimbrough, Ala., 143 miles, has been authorized by the Interstate Commerce Commission to issue \$2,500,000 of capital stock and \$1,500,000 of 6 per cent first mortgage bonds. It is stated that \$400,000 of the securities will be paid on the property and that \$600,000 of the bonds will be sold at not less than 85 per cent of par, the proceeds thereof to be applied to the payment of the reorganization expenses and the rehabilitation of the road. The rest of the bonds will be held in the company's treasury.

A Successful Year in Spite of Strikes.

In the thirteenth annual report of the Virginian Railway Co., which covers the year 1922, it is noted by President C. W. Huntington, that on December 31 last there were 113 coal mines (not including wagon mines), in operation on the main line, branches and connecting lines of the system in Virginia and West Virginia, of which eight began shipping during the year, and three additional mines were under way. Four of the mines were temporarily closed during the year on account of strike conditions.

Nine new industries were established including eight manufacturers of forest products and one canning factory.

Lease of the Virginian & Western Railway from a connection at Virvest to Glen Rogers, 14½ miles, was made and an extension of about 3½ miles of the acquired line is being completed this year and will develop considerable additional coal territory. This line is being operated as part of the company's system.

Concerning the effect of the coal strike last year the report says that the strike at mining operations from Eccles westward caused a decrease of tonnage in that region, but that this was more than offset by increased production at other mines so that the railroad operations were not adversely affected by the strike.

As to the strike of the railroad shopmen, it is stated that of the 1159 mechanical and electrical men employed by the company and who were members of the Federated Shop Crafts, 1132 went out in response to the strike call. Through the personal efforts of the officers and other employees of the railroad operations were continued and on January 1 last a normal shop force, not identified with the Federated Shop Crafts was at work and the condition of the mechanical department is fast approaching its former efficiency, although the strike has not been officially called off.

The income account shows for the year 1922 with comparisons for 1921 as follows: Operating revenue 1922, \$19,009,443; 1921, \$18,024,356; operating expenses 1922, \$12,439,391; 1921, \$12,405,727; gross income after taxes, rentals, etc., 1922, \$5,922,288; 1921, \$5,374,674; net income 1922, \$3,408,032; 1921, \$2,937,732; net income carried to profit and loss, 1922, \$3,408,032; 1921, \$5,245,826, the latter having been large owing to additional compensation of \$2,308,094 received from the Government for rental during Federal control.

Freight Traffic Unusually Heavy.

The American Railway Association reports that 991,797 cars were loaded with revenue freight during the week ended May 19, this being another record breaker in comparison with the corresponding week last year by more than 210,000 cars, and with the same week in 1921 by over 220,000 cars. Moreover, it exceeded the previous week this year by more than 17,200 cars, and notwithstanding these heavy loadings of freight the shortage of freight cars on May 22 showed a decrease of nearly 3200 as compared with May 14. Besides, the surplus cars in good repair was 22,700, an increase of 4281 between those dates and this total number was over 2100 in excess of the car shortage. This, it is further stated, is the first time since September 1 last that the surplus of cars has exceeded the shortage. Loadings of revenue freight since January 1 total more than 18,000,000 cars as compared with over 15,000,000 in the same period of last year and with over 14,000,000 in the same period of 1921.

Shopmen's Pay Increased.

The Virginian Railway Company, according to a report from Norfolk, Va., on June 1 raised the wages of its shopmen 3 cents per hour, which it is stated, will amount to an increase of shop expenses of about \$100,000 a year.

Baltimore & Ohio System Earnings.

The Baltimore & Ohio Railroad Company's statement of earnings and expenses for April shows railway operating revenues, \$21,675,358; increase as compared with the same month of last year, \$5,356,647; railway operating expenses, \$16,508,453; increase, \$4,030,782; net revenue from railway operations, \$5,166,905; increase, \$1,325,865; net railway operating income after tax accruals, equipment rents, joint facility rents, etc., \$4,011,487; increase, \$1,277,453.

The totals for the first four months of the current year, including comparisons with the same period of last year, are as follows: Railway operating revenues, \$83,672,001; increase, \$19,435,109; railway operating expenses, \$64,211,531; increase, \$13,434,408; net revenue from railway operations, \$19,460,470; increase, \$6,000,701; net railway operating income, \$14,524,143; increase, \$5,114,667.

Thrift Association on Pennsylvania System.

A new means by which the 250,000 officers and employees of the Pennsylvania Railroad System may save money, increase their pensions, invest in homes and also in the securities of the company, and obtain emergency loans on their personal credit, has been announced by President Samuel Rea, of the railroad company, and it will become effective on July 1 through the formation of the Pennsylvania Railroad Employees' Provident and Loan Association, a co-operative concern. Participation in it is entirely voluntary. The railroad company will assist the Association by safe-keeping of its funds, securities, or other assets, and will allow 4 per cent interest on monthly cash balances, besides paying the ordinary operating expenses in connection with its activities. Any employee who has been in the service for a year may become a member.

Official Changes on the B. & O.

H. B. Voorhees, general manager of the New York terminals of the Baltimore & Ohio Railroad, has been appointed general manager of the company's western lines at Cincinnati, succeeding R. N. Begien, who resigned to become operating vice-president of the Chesapeake & Ohio Railway. R. B. White, general superintendent at Baltimore, succeeds Mr. Voorhees at New York, and C. W. Van Horn, superintendent at Cumberland, Md., succeeds Mr. White at Baltimore. R. W. Brown, superintendent at Connellsville, Pa., succeeds Mr. Van Horn at Cumberland and G. W. Martin, superintendent of the Pittsburgh terminal, succeeds Mr. Brown at Connellsville, while W. F. Booth, assistant superintendent of the Pittsburgh terminal, becomes superintendent there.

Projected Railroad Extension.

Engineers are now at work on a preliminary survey for the contemplated extension of the Tennessee, Alabama & Georgia Railroad, according to a report from Gadsden, Ala. The extension projected is from Gadsden to Odenville, Ala., about 36 miles, to connect with the Seaboard Air Line. The company has forwarded an application to the Interstate Commerce Commission for authority to issue stocks and bonds to the amount of \$2,100,000 to finance the extension, this including \$500,000 of common stock, \$400,000 of preferred stock and \$1,200,000 of first mortgage bonds.

New Equipment

The Interstate Commerce Commission has authorized the Seaboard Air Line Railway Co. to issue \$7,737,998 of equipment trust certificates to cover purchases previously reported.

Florida East Coast Railway is reported to have ordered 15 baggage cars, 2 mail cars, and 1 dining car, all of steel construction, from the Pullman Company.

Kansas City Southern Railroad is reported in the market for 500 box cars.

TEXTILE

\$1,000,000 Contract Let for Mill Buildings.

La Grange, Ga.—The Dunson Mills have awarded contract to the Fiske-Carter Construction Co. of Greenville, S. C., to erect four large mill buildings here which will cost about \$1,000,000 to build and equip, the cost of the buildings alone to be \$359,000. These additions will double the capacity of the mills.

Among the improvements will be a 2-story weave shed addition, 165 by 132 feet; 2-story and basement addition to the main plant; new slasher building, 292 by 92 feet, one story, and a 50-foot warehouse.

J. E. Dunson, Jr. is the president of the Dunson Mills which operate 24,000 spindles and 438 looms for the production of duck, drills, twills, etc.

Hosiery Mills to Resume Daily Capacity 500 Dozen Pairs of Hose.

Elizabeth City, N. C.—The Avalon Hosiery Mills here will soon resume operations under the direction of the Elizabeth City Hosiery Co., owner of the plant. The Avalon mills have been idle for nearly three years, but have been improved with machinery from the plant of the Elizabeth City Hosiery Co., and will be prepared to produce 500 dozen pairs of hose per day, employing 100 operatives.

The Elizabeth City Hosiery Co. now employs 300 operatives and has a production capacity of 1500 dozen pairs of hose per day.

Growth of Co-operative Marketing of Cotton.

Dallas, Tex., May 31—[Special.]—It is stated by C. C. Moser, secretary of the American Cotton Growers' Exchange, that the newly organized Louisiana Farm Bureau Cotton Growers' Co-operative Association has been admitted to the Exchange. By this addition to the Exchange, which had comprised Texas and seven other states, 5000 cotton farmer members, and 100,000 bales signed up, are added to the force of co-operative marketing of the South's greatest crop. Already 150,000 members, selling more than 500,000 bales, have been active in exchange.

Texas Textile Association Elects.

Bonham, Tex., June 1—[Special.]—At the recent annual meeting of the Texas Textile Association, a number of matters relating to the cotton mill industry were discussed and officers for the ensuing year were elected as follows: C. S. Tatum of Bonham, president; S. C. Cain of San Angelo, vice-president; J. R. Compton of Gonzales, vice-president; and D. H. Pool of Sherman, secretary-treasurer.

The Texas Textile Association was organized in 1914, the object being to promote better understanding between cotton mill superintendents and department heads.

To Double Capacity of Hosiery Plant.

Elizabeth City, N. C.—The Standard Manufacturing Co. of this city has increased its capital stock from \$20,000 to \$100,000 and plans to install equipment which will double the capacity of its hosiery plant. It will purchase the building it occupies and install machinery to increase its capacity to 175,000 dozen pairs of hose per month by working two shifts daily.

Dennis Van Horn is the president of the company, H. G. Godfrey, vice-president, and H. W. Morrisette, secretary-treasurer.

Some Lancashire Cotton Mills Fail to Pay Dividends While Others Pay Large Ones.

Manchester, England, May 15—[Special.]—The April stock-taking results of 60 Lancashire cotton spinning companies, which have a total paid-up ordinary share capital of £7,456,250 and control 6,123,696 spindles, have just been announced, and in 38 cases the return to shareholders has been nil. The remainder, however, have made distributions ranging from 2½ to 20 per cent per annum, requiring £82,160.

An average dividend of 3.43 per cent was paid by 38 companies for three months compared with 3.50, 3.81, 4.51, and 4.60, respectively, for the four previous quarters. Two concerns declared 20 per cent, five 10, one 8, six 5, one 2½ and 23 nothing at all.

In the case of 22 firms whose reports relate to the half year, two paid 20 per cent, one 10, one 5 1-3, three 5, and the remaining 15 nil. The average was 3.20 against 3.59 in October, and 4.23 twelve months ago.

Quotations for British Textile Shares.

An interesting table of ordinary share quotations on the Manchester Stock Exchange, calculated on an index number basis, for twelve leading textile companies, is a feature of the latest issue of the Cotton Trade Review. The following firms are dealt with: Amalgamated Cotton Mills Trust, Bleachers' Association, Bradford Dyers' Association, British Cotton & Wool Dyers' Association, Calico Printers' Association, J. & P. Coats, Crosses & Winkworth Consolidated Mills, English Sewing Cotton Co., English Velvet & Cord Dyers' Association, Fine Cotton Spinners' Association, Joshua Hoyle & Sons, and Rylands & Sons.

Taking the par value of the shares as a basis of 100, at the end of July, 1914, the figure for the average of the above companies was 179, and on December 31, 1919, 324. On December 31, 1921, the index was 131, and at the end of last year 172. The lowest weekly figure this year was 175 on January 5, and the highest 206 on May 4. The current average is 197 for May 11.

Sale of Nearly Half a Million Pounds of Texas Wool.

Mertzon, Texas, May 31—[Special.]—At the opening sale of the season of the West Texas Wool and Mohair Company just held here approximately 450,000 pounds of long and short wool were sold at prices ranging from 45 to 55 cents a pound. Buyers and the amounts each received follow: E. J. Harlow, for the Charlottesville Woolen Mills, 135,000 pounds; H. P. Buell for Studley A. Emery, Boston, 75,000; John S. Allison, San Angelo, for Adams & Leland, Boston, 75,000; Charles F. Angell, for Hallowell, Jones & Donald, Boston, 94,000; and Caldwell Palmer, San Antonio, for Jeremiah Williams & Co., Boston, 47,000.

Bids on 200,000 pounds were rejected and another sale will be held at Mertzon, June 7, when about three-quarter million pounds will be offered.

Concrete Contract Let for Mill Building.

Hogansville, Ga.—Contract has been awarded by the International Cotton Mills of Boston to the A. J. Krebs Co. of Atlanta for the concrete skeleton of the new Stark mill at Hogansville. This mill will be erected adjoining the present plant of the Hogansville division of the International Cotton Mills and will have 260,000 square feet of manufacturing floor space, exclusive of store house and boiler plant. From 100 to 125 dwellings for operatives will be erected.

The new plant will produce tire fabrics and also some of the goods formerly manufactured by the Stark Mills at Manchester, N. H. which included twills, crashes and sateens.

The entire contract operation will be under the management of Lockwood, Greene & Co., engineers of Boston and Atlanta.

The English Mountain of Cotton Production Labored and Brought Forth a Mouse of 67,000 Bales Last Year.

Manchester, England, May 23—[Special.]—What may be considered a satisfactory annual report is that just issued by the British Cotton Growing Association, "A record was created in the number of bales it marketed, 67,386, which was the largest in its history. The value of the cotton was £1,628,788 and that with the exception of 1920 was higher than in any other of the 25 years' history of the Association. The estimated amount of cotton grown in new fields in the British Empire during 1922 was 103,400 bales as compared with 165,100 bales in 1921 and 72,600 bales in 1917."

Commenting on the falling off of the production as compared with the previous year the report states that "the prospects for the future are distinctly promising, but temporary set-backs, caused by climatic and economical conditions occasionally arise and they cannot be avoided. It is now certain that within the next few years large quantities of suitable cotton will be produced within the Empire and those new areas which at the present time give the greatest promise are the Sudan, Northern Nigeria and Uganda. By careful management of 'hedged' the year's working has yielded a surplus of £33,088, which increases the excess of income over expenditure to £59,522. There is no doubt that that money will be very useful, as there is still a great deal of work to be done in fostering the growth of cotton within the Empire. It was only to be expected that owing to the violent fluctuations which have taken place in raw cotton rates during the last two years the native cotton growing industry in some councils and Protectorates would suffer a set-back, as it is difficult for the natives to understand fluctuations in values." According to the report, "this has especially been the case in the Southern provinces of Nigeria and in Uganda. The demand for African cotton during the greater part of the year was quite satisfactory, and there are now adequate shipping facilities from the African ports."

Arcadia Mills Award Building Contracts.

Spartanburg, S. C.—Contract has been awarded to the Gallivan Building Co., of Greenville, for the erection of the new mill building which the Arcadia Mills will build here. The structure will be three stories and part basement, 287 by 105 feet, concrete foundation, brick side walls, steel floor beams and vertical cast columns. It will house 20,000 spindles as the initial installation. There will also be three warehouses of standard construction and a boiler house.

The company has purchased Whitin spinning frames and roving machinery, Kitson pickers and Hopedale looms, the equipment to be electrically driven.

F. H. and J. G. Cunningham, of Greenville, are the architects who designed the building in association with the Spartanburg office of Lockwood, Greene & Co., engineers, of Boston and Atlanta.

H. A. Ligon, Jr., is the treasurer and general manager of the Arcadia Mills.

Opelika Cotton Mills Sold to George H. Lanier and Others, Who Will Operate Plant.

Opelika, Ala.—The Opelika Cotton Mills here have been purchased by George H. Lanier of West Point, Ga., and associates. It is thought the consideration was about \$750,000.

A new company will be organized to operate the mills and enlargements will be made by the extension of buildings and the installation of additional machinery. The plant at present has about 18,000 ring spindles and nearly 6000 twister spindles for the production of weaving and knitting yarns.

GOOD ROADS AND STREETS

350 Miles of Roads in This Year's Program for State of Tennessee.

Nashville, Tenn.—Tennessee's road building program to be financed from funds available in 1923, calls for the construction of nearly 350 miles in various sections of the state.

Tentative plans, as outlined by the Department of Highways, embrace federal aid roads as follows: Eighteen miles in Tipton County, 30 miles in Fayette, Tipton and Haywood counties, 14.7 miles in Madison, 7.4 miles in Denton, 2.1 miles in Montgomery, 9.7 miles in Cheatham; one-half mile in Davidson, 12.6 miles in Wayne, road in Bedford county, 13.8 miles in Marion, 26 miles in Warren and White counties, 11 miles in Bradley, 11 miles in McMinn, and 22 miles in Sullivan county.

State aid roads include 11 miles in Robertson county, 23 miles in Sumner, 33 miles in Humphreys, 17 miles in Dickson, 7.5 miles in Lewis, road in Perry county and one in Montgomery, 14.5 miles in Maury County, oil on 13.7 miles in Overton county, surface an 8 mile section of road in Goffee county and re-surface 5.1 miles, 12 miles in Wilson county, 7 miles in Marion and 14 miles in Cumberland county.

Five bridges are also planned, one over Sulphur Fork in Robertson county, one over Stone River in Rutherford county, one over Caney Fork, between Warren and White counties, and two in Hicks county, between Centerville and the Dickson county line.

Louisiana Invites Bids for Various Roads.

Baton Rouge, La.—Sealed proposals will be received at the office of the Louisiana Highway Commission, in this city until June 19, for constructing sections A and B, of the Abbeville-Jennings Highway in Vermilion Parish, Section A, will cover a stretch of 9.23 miles from Abbeville to Kaplan, and Section B, from Kaplan to the end of the gravel road one-half mile west of Mulvey. The work will consist of grading, draining, culverts, bridges and gravel surfacing, separate bids to be submitted and separate contracts to be made for each section.

Bids will also be received until the same date for furnishing materials to build a sand clay road on the Abbeville-New Iberia Highway in Vermilion Parish, and for constructing a reinforced concrete culvert in Bayou Poydras, with the necessary earth embankment, and gravel surfacing the Lakeland-Erwinville spur of the New Roads-Baton Rouge Highway, about 2 miles south of Lakeland, in Pointe Coupee Parish.

J. M. Fourmy, is the State Highway engineer with offices in Baton Rouge.

Bids Until June 22 for Tennessee Roads.

Nashville, Tenn.—Bids will be received until June 22 by the State Department of Highways and Public Works, J. G. Greveling, Jr., commissioner, for the following projects:

Federal aid; for grading, laying concrete pavement and building drainage structures on 14.7 miles of road in Madison county; grading, drainage, modified Telford base and bituminous macadam surface on 2.04 miles in Montgomery county, and excavating and placing drainage pipes adjacent to bridge site in the same county; reconstructing base and placing about 30,000 square yards of bituminous macadam surface on road in Coffee county.

State aid; for 126,000 square yards of bituminous surface treatment in Overton county; grading and draining 19.9 miles in Grundy county; placing 64,000 square yards of modified Telford base in Overton county with a like amount of bituminous macadam surface, and reconstructing 10.7 miles of base course in Robertson county, with approximately 100,000 square yards of bituminous macadam surface.

Bids Invited for Road and Bridge Work in an Alabama County.

Birmingham, Ala.—The Board of Revenue of Jefferson County, with offices in this city, will receive bids until June 8 for grading four hills on the road from Elbow to Porter, about three miles, which will require 30,000 cubic yards of excavation with the necessary waterways, and for grading 1.5 miles of road from the steel bridge near Flat Top to Snow Town, which will require 25,000 cubic yards of excavation.

Bids will also be received until the same date for the construction of a steel bridge over Locust Fork of the Warrior river near Flat Top, to consist of two 198-foot riveted steel truss spans and eleven 22-foot steel approach spans, with the necessary concrete abutments and cylinder piers. About 250 tons of steel and 700 cubic yards of concrete will be required.

H. C. Rogers is the county engineer.

Washington County Awards Contract for 8 Roads.

Abingdon, Va.—Contract has been awarded by the Washington County Commissioners to the Warden Construction Co. of Pulaski, Va., at approximately \$100,000, to improve 8 roads in Glad Spring district. These projects include 1.33 miles of the Cedarville-Meadow View road; 1.7 miles between Abingdon district line and Meadow View; 1.47 miles between Meadow View and Emory; 1.2 miles of Scott road, between Emory and Saltville district line; 1.8 miles between State Road No. 10, and Price's Bridge; 1.21 miles of the Tattle Creek road, between Dickerson's Store and Hutton's Bridge; 2.12 miles of Hogthief Creek road, between State Road No. 10 and the Middle fork of Holsten road; and 1.24 miles of the Hogthief road, between State Road No. 10 and the Norfolk & Western Ry.

W. H. Ashton is the supervisor of Washington County.

Navarro County Considering \$4,750,000 Bonds for Road Building.

Corsicana, Tex.—The County Commissioners of Navarro County will soon be called upon to consider a petition now being circulated by the Chamber of Commerce of this city, providing for an election on \$4,750,000 bonds for the purpose of building good roads in the county. The petition presents in detail the roads to be constructed and the amount of money to be expended in each district. It will be presented to the Commissioners' Court on June 11.

Bids Invited for a South Carolina Road.

Orangeburg, S. C.—Bids will be received until June 15 at the office of the county highway commission for the construction of 8.466 miles of State Route No. 27 in Orangeburg county, beginning at the Dorchester county line near Dorange and extending through Branchville to a point near the Edisto river. Plans and specifications are on file at the office of W. C. Cathey, division engineer and the state highway engineer, Columbia, S. C.

\$248,000 Road Contract Awarded.

Cleburne, Tex.—Contract has been awarded by the Commissioners' Court here to the G. A. McClung Construction Co. of this city, to build the primary road in county. The contract covers the dirt and bridge work, and the shipped-in gravel. It is stated that construction will be started at once.

The City Council of South Charleston, W. Va., has awarded contract to Reed & Lapsley, of South Charleston, for street paving to cost about \$150,000.

LUMBER AND BUILDING MATERIALS

Weekly Report on Lumber Throughout Country.

Washington, May 31.—The lumber movement shows further recessions for the week ending May 26, says the weekly review of the National Lumber Manufacturers' Association, although incomplete reports make the decline appear to be more than it actually is—there being only 388 mills represented as compared with 420 in the preceding week.

The reporting mills as a whole gave their shipments as 95 per cent and their new business as 76 per cent of current production. For the Southern pine mills alone these percentages were respectively 107 and 74 per cent and for the West Coast mills 94 and 83. Of the reporting mills 357 have a normal production figure for the week, in relation to which actual production was 104, shipments 101 and new business 80 per cent. It will be observed that production is holding up comparatively well.

The following table compares the three factors of the lumber movement for last week, the corresponding week of 1922 and the preceding week of 1923:

	Past Week 388	Corresponding Week 1922 371	Preceding Week 1923 (Revised) 420
Mills			
Production	245,491,791	228,807,963	277,917,581
Shipments	233,361,287	242,237,119	248,527,565
Orders	186,797,002	265,706,811	219,227,459

The lumber movement so far this year as compared with the like period of 1922, is as follows:

	Production	Shipments	Orders
1923	4,930,055,900	5,392,560,241	5,518,743,697
1922	4,056,135,257	4,154,264,051	4,594,128,115
1923 Increase	873,920,643	1,238,296,190	924,615,582

The Southern Pine Association reports a small drop in production of Southern pine, probably due to continued tightening of the labor supply. Lumber manufacturers in that section are now receiving all the cars needed; shipments last week exceeded production 7 per cent and registered a slight gain over the previous week. Unfilled orders for 138 mills are 14,414 cars.

The West Coast Lumbermen's Association reports from Seattle that 36 per cent of all new business taken during the week was for future water delivery; this amounted to 32,308,215 feet, of which 25,679,215 feet was for domestic cargo delivery, and 6,629,000 feet was export. New business by

rail amounted to 1743 cars. Thirty-one per cent of the week's lumber shipments moved by water; this amounted to 31,413,938 feet, of which 25,397,043 feet moved coastwise and intercoastal and 6,016,895 overseas. Rail shipments totaled 2158 cars. Unfilled domestic orders now total 172,047,513 feet. Unfilled export orders are 93,798,741 feet. Unfilled rail trade orders are 7811 ars.

The California White and Sugar Pine Mfrs. Association reports from San Francisco that labor and car supply are normal, the log supply ample, weather fair, stocks low and demand general.

Orders and Shipments Above Preceding Week.

The North Carolina Pine Association reports as follows on 52 mills for the week ending May 26:

	Total Feet
Orders	6,249,151
Shipments	10,721,532
Production	8,879,965
Normal Production	14,910,000

The orders were 37 per cent below shipments, 24 per cent below actual production and 54 per cent below normal production. Shipments were 20 per cent above actual production and 29 per cent below normal production. The actual production was 40 per cent below normal. The week shows an increase in orders over the preceding week of 1,246,700 feet or 20 per cent.

Southern Pine Association Standard Grading Rules Adopted at New Orleans.

The Committee on New Orleans Lumber Grades, comprising representatives of the retail lumber dealers, architects and contractors of that city, has adopted the Southern Pine Association standard grading rules in place of the old grading rules of the Contractors & Dealers' Exchange, and also has approved and adopted the specifications and classifications covering the use of lumber for architectural construction devised by the sub-committee of the general committee.

The schedule specifying the grades, sizes, etc., of lumber to be used for particular purposes will be printed in pamphlet form, along with other information on the subject, and will be distributed free by the Association and New Orleans retail lumber dealers.

LUMBER MOVEMENT FOR TWENTY-ONE WEEKS, AND FOR THE WEEK ENDING MAY 26

	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
Southern Pine Association:						
Total	1,626,815,759	1,477,824,044	1,759,861,655	1,499,848,371	1,716,260,024	1,653,417,947
Week (150 mills)	76,623,736	76,833,014	82,030,151	90,978,678	56,788,466	105,481,614
West Coast Lumbermen's Ass'n:						
Total	2,043,377,326	1,669,671,326	2,281,690,908	1,613,427,946	2,209,999,708	1,711,829,358
Week (134 mills)	109,187,190	91,308,220	102,244,104	92,594,978	90,688,381	100,581,197
Western Pine Mfrs. Association:						
Total	485,429,000	320,334,000	548,689,000	452,301,000	527,500,000	527,950,000
Week (33 mills)	30,470,000	26,996,000	24,170,000	26,727,000	18,875,000	26,650,000
Calif. White & Sugar Pine Mfrs.:						
Total	190,489,000	65,447,000	192,817,000	101,988,000	476,479,000	179,248,000
Week (4 mills)	1,419,000	2,775,000	560,000	1,505,000	739,000	491,000
Calif. Redwood Association:						
Total	162,921,000	152,628,000	175,893,000	145,586,000	199,679,000	157,723,000
Week	no report	9,266,000	no report	8,067,000	no report	10,717,000
North Carolina Pine Association:						
Total	190,356,115	180,511,525	204,116,778	167,018,068	173,265,865	173,321,810
Week (52 mills)	8,879,965	8,773,970	10,721,532	8,930,523	6,749,155	8,489,000
Northern Hemlock and Hardwood:						
(Softwood) Total	51,305,000	36,265,000	55,833,000	50,233,000	53,712,000	53,734,000
Week (18 mills)	2,833,000	1,139,000	2,804,000	2,738,900	1,940,000	2,080,000
Northern Pine Mfrs. Association:						
Total	179,362,700	153,454,062	173,658,900	123,861,666	161,848,000	136,904,000
Week (9 mills)	13,181,900	11,711,759	8,328,500	10,695,940	9,876,000	11,217,000
General Total for 21 Weeks:						
(Softwood)	4,930,055,900	4,056,135,257	5,392,560,241	4,154,264,051	5,518,743,697	4,594,128,115
Northern Hemlock & Hardwood:						
(Hardwood) 21 weeks	74,228,000	.....	62,883,000	.....	59,679,000	.....
General Total for Week	245,491,791	228,807,963	233,361,287	242,237,119	186,797,002	265,706,811

Weekly Report on Southern Pine.

The Southern Pine Association for the week ended May 25 reports as follows on 138 mills:

	Cars	Feet
Orders on hand beginning of week	15,599	332,274,299
Orders received during week	2,666	56,788,466
Total	18,265	389,062,765
Shipments during week	3,851	82,030,151
Orders on hand end of week	14,414	307,032,614

Production for the week was 76,623,736 feet. Shipments were 5,406,415 feet above production or 7.06 per cent, and orders were 19,835,270 feet below production, or 25.89 per cent. Orders were 30.77 per cent or 25,241,685 feet below shipments. The week was 11.69 per cent or 10,145,225 feet below normal production and orders were 34.55 per cent or 29,980,495 feet below normal production. The decrease in "orders on hand" amounted to 25,241,685 feet or 7.60 per cent.

Death of John E. Rhodes.

Announcement of the death Saturday, June 2, of John E. Rhodes, secretary-manager of the Southern Pine Association, is made by the directors of that organization. No man identified with the lumber industry was more widely known, and news of his untimely end will come as a shock to his associates and the many with whom his conspicuous activities brought him into contact.

Meeting of North Carolina Pine Association.

The next general meeting of the North Carolina Pine Association will be held in Norfolk, Va. at the Monticello Hotel on June 14. Following the Directors' meeting matters of general interest will be taken up, routine business disposed of and subjects of interest to the Association discussed.

Potomac Edison Company Plans to Consolidate Railway, Light and Power Properties in Western Maryland—Asks Authority to Issue \$4,414,000 Bonds.

The Williamsport Power Co., of Williamsport, Md., has requested permission of the Public Service Commission of Maryland to issue \$4,414,000 of bonds and preferred stock and 25,000 shares of common stock with no par value. This company will later be known as the Potomac Edison Company, with main offices at Hagerstown, Md., and its plans are to consolidate the street and interurban railway service of the Hagerstown & Frederick Electric Railway Co. and the street railway, light and power service of the Cumberland Electric Railway.

It will also take over and complete the generating plant at Williamsport under construction for the Williamsport Power Company.

Officers of the Potomac Edison Company include M. F. Riley, president; C. M. Harris, vice-president, both of Hagerstown; R. Paul Smith, of Cumberland, general manager, and Emory L. Coblenz, Hagerstown, chairman of the board.

American Electrochemical Society Meeting.

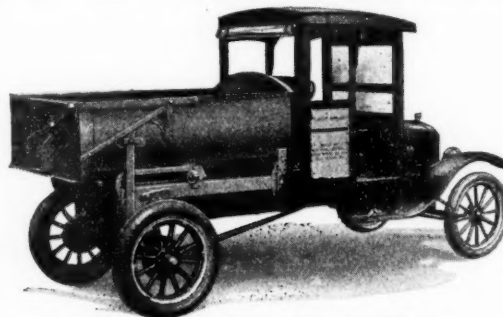
The next meeting of the American Electrochemical Society will be held in Dayton, Ohio, September 27, 28 and 29, of this year. The plans include a symposium on Electrochemistry of Gaseous Conduction in charge of Dr. Duncan Mac Roe Research Laboratory, Westinghouse Lamp Co., Bloomfield, N. J. Also a symposium on Recent Progress in Electrolytic Refining, the chairman to be F. R. Pyne, U. S. Metals Refining Co., Carteret, N. J.

An innovation at the meeting will consist of round table discussions on Electric Furnace Brass Foundry Practice; Organic Electrochemistry; Chlorine; and Electroplating.

MECHANICAL

An All Service Body for Light Trucks.

The accompanying pictures show the "Crooke" all-service truck body on a one-ton Ford truck chassis for coal dealers, express companies, lumber dealers, building supply houses, road contractors, sand and gravel concerns, brick manufacturers, general contractors, etc. This body is made by the New York Central Iron Works Co., Inc., Hagerstown, Md., which states that it is built of all steel and that it combines



TRUCK BODY ON 1-TON CHASSIS

ability to withstand hard service with lasting qualities. The nominal capacity is one ton and the cubic feet capacity (without surcharge) is 36½ cubic feet, dimensions being 72 inches by 44 inches by 20 inches.

The body is made of No. 10 steel plate reinforced with angle irons and is of welded and riveted construction. The substructure is of 4 inch steel channel material riveted together with suitable angle iron connections. All body links and pins are of steel. The dumping shaft is of 1¼ inch cold rolled steel and the pinions are of cast iron. The self cleaning spider racks are of mild steel, the guide rollers of cast iron, the front bolster of well seasoned resilient wood.

This body, it is stated can be fitted to the truck chassis in fifteen minutes by placing six bolts which are supplied with



BODY TILTED FOR DUMPING OPERATION

the body. No drilling is necessary on the chassis. The safe overload is 100 per cent; the extreme dumping angle about 45 degrees. The capacity is one ton of coal or two tons of stone or heavy commodities.

For handling coal or other materials with which it is desirable to unload by means of a chute the body is so arranged that the tail gate may be inoperative and then the flow of material can be controlled by a coal gate fitted in the tail gate. For express and some other purposes the tail gate may be disconnected and turned over to the front end of the body, or by moving a handle the body can be placed at an angle of 6 degrees from horizontal, the tail gate opening automatically to the full height of the body and allowing pack-

ages, etc., to be easily removed without letting the entire load slide out. If the material loaded is such as to make dumping the whole load at once desirable that can be done by means of a crank which may be used on either side of the truck. Other manipulations can also be made according to work to be done, as the truck has a wide range of use.

Automatic Coal Crusher and Sampler.

An automatic coal crushing and sampling machine is shown in the accompanying illustration and the manufacturers, the Sturtevant Mill Company, of Boston, Mass., say that it automatically crushes coal and at the same time extracts a sample of 5, 10 to 15 per cent of the amount passing through the machine, doing away with inaccurate hand methods of sampling coal and that it is used by many plants which are purchasing fuel on a heating capacity or B. T. U. basis.

The coal is fed into the hopper in 3 inch pieces—or finer—and then it is nipped by the top crushing members and is



VIEW OF COAL CRUSHER AND SAMPLER IN USE

subjected to gradual reduction until discharged at the periphery below. A sample spout is placed opposite the discharge opening and is arranged to remove a certain percentage of the product. This sample, it is observed, is exactly representative of the whole amount of coal that has passed through the machine, including the correct proportion of coarse and fine, slate, sulphur, or other impurities that are fed into it. The sample is the direct discharge, unaffected by scrapers, mixers, or other devices.

It is further remarked that properly taken samples of coal are of great value, because the correct analysis of them will assist a coal operator to intelligently direct the working of his mines and the preparation of coal or coke being produced. They aid the sales department in placing the coal where it will give the most satisfaction and they make it possible for a consumer of coal to buy fuel intelligently and thus secure the fuel best adapted to his needs. The machine it is further stated, will not only produce accurate samples but it will prove to be a great saver of labor.

Besides being used at a great number of industrial plants and many other enterprises and institutions in the north, east and west, these coal crushers are also widely employed in the South at various points including Washington, D. C.; Newport News, Va.; Norfolk, Va.; Columbia, S. C.; Atlanta, Ga.; Canton, N. C.; Covington, Va.; Muscle Shoals, Ala.;

Memphis, Tenn.; Curtis Bay, and Baltimore, Md.; Clarksburg, W. Va.; South Boca Grande, Fla.; Nichols, Fla.; El Paso, Tex.; St. Louis, Mo.; Louisville, Ky.; New Orleans, La.; Hellier, Ky.; Dante, Va.; Coal Valley, Ala.; Tams, W. Va.; Ashland, Ky., etc.

Special Machinery of Unique Type to Be Used in Carving Stone Mountain.

Atlanta, Ga., June 1.—[Special.]—New and unique machinery, costing approximately \$250,000 and the gift of engineers throughout the country, will be used in carving the great Confederate Memorial on Stone Mountain, near Atlanta.

Along the sheer face of the mountain, above the tops of the figures outlined for carving, will be erected a row of immense steel booms. They will serve the same purpose as brackets in placing a shelf on the wall.

A track will be laid on top of these booms, along which will run a car for carrying away stone and cropping it at the foot of the mountain. Another track will be hung underneath them, on which will move a gigantic pantograph.

This pantograph will move back and forth along the side of the mountain for more than 600 feet, and the movable arm will move up and down the mountain side with a radius of something like 200 feet. On the end of the pantograph arm will be a platform on which sixteen men can work at a time.

The pantograph arm and platform can move in any direction across the face of the cliff, enabling the workers to follow the outlines of the memorial figures. The workmen will be armed with pneumatic stone cutters, and will be able to cut a slot in the granite one inch wide, twelve inches deep, and sixteen feet long in one hour.

When the work gets under way, several pantograph machines will probably be working on the side of the mountain, reducing the time of cutting so that the whole memorial can be finished in a few years.

Nothing to match these pantographs has ever before been invented or put into operation, it is declared, and when the work on Stone Mountain gets started, engineers say, it will furnish a sight far more interesting than the construction of the Panama Canal.

Men riding on the pantograph platforms will be as safe as if riding in an elevator, and thousands of visitors are expected to watch the work as it progresses.

Lester Barlow, of Cleveland, Ohio, is the designer of much of the new machinery that will be used, and the Brown Hoisting Machinery Company, also of Cleveland, will construct and install it.

Hickory, N. C., and Catawba County.

The numerous advantages of Hickory, N. C., are most attractively and entertainingly set forth in a twenty-eight page booklet issued by the Hickory Chamber of Commerce. It is a bountifully illustrated publication with reproductions of photographs taken in and around Hickory, these pictures showing views in the industrial, the commercial and the residential parts of the city, all of them being impressive of the character of the place, besides others showing roads, farming country and mountain regions, many of the latter being views of rare beauty. Products of the agricultural sections of Catawba county, its cattle, etc. are also displayed. Hickory has, it is stated, 6000 population within its limits, besides a suburban population of 6500. There are fifty manufacturing establishments in which more than 2500 workers are employed. In addition to these industrial plants there are 112 retail and 10 wholesale stores. In the entire county there are 110 manufacturing plants of various character, with a total of 4200 workers. The booklet is written in such a vein that it firmly holds the attention of the reader, who cannot fail to be interested in its descriptions of urban and rural life.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Bridges, Culverts and Viaducts.

Alabama—State Highway Dept., Montgomery, Ala., will build 5 bridges. Details under Road and Street Construction.

La., New Orleans—City, R. M. Murphy, Commr. of Finances, will receive bids until July 3 to repair Newton St. viaduct; 1491 ft. long by 29 ft. wide; cost \$75,000 to \$80,000; plans, etc., from City Pur. Agt.; John Klorer, City Engr. (Lately noted.)

La., New Roads—Louisiana Highway Comm., J. M. Fourmy, Engr., Raymond Bldg., Baton Rouge, La., will receive bids until June 19 to construct reinforced concrete culvert in Bayou Poydras, build necessary earth embankment and gravel surface Lakeland-Erwinville spur of New Roads-Baton Rouge Highway, about 2 mi. south of Lakeland, Pointe Coupee Parish; plans, etc., on file.

Miss., Jackson—Jackson & Eastern Ry. Co., S. A. Neville, Pres. and Genl. Mgr., Meridan, Miss., and Hinds County, Board of Supvrs., contemplate building bridge across Pearl River in Hinds County.

Missouri—State Highway Dept., B. H. Piepmeyer, Ch. Engr., Jefferson City, Mo., plans building 10 bridges as follows:

DeKalb County, 2 sections; over Jordan Branch, and East Branch of Jordan Branch, on road from St. Joseph to Hannibal, State Proj. Route 8, Sec. 4, and over Castile Branch, and East and West Branches of Castile Creek, on road from St. Joseph to Hannibal, State Proj. Route 8; Howell County, on road from West Plains to Willow Springs, State Proj., Route 7; Jasper County, over Mill Race, on road from Carthage to Springfield, State Proj. Route 38; Monroe County, 2 sections; over Salt River, and Otter Creek, on road from Shelby to Paris, State Proj. Route 15; Saline County, over Rock Creek on road from Marshall to Glasgow, State Proj., Route 20.

Missouri—State Highway Dept., B. H. Piepmeyer, Ch. Engr., Jefferson City, Mo., plans constructing 16 bridges as follows:

Atchison County, on road from Fairfax to Tarkio; 40-ft. reinforced concrete deck girder span, State Proj., Route 61; Buchanan County, 3 sections, over Platte River, on road from St. Joseph to Hannibal, F. A. Proj. 205-A, Route 8, Sec. 1; over 102 River, on road from St. Joseph to Hannibal, F. A. Proj. 205-A, Route 8, Sec. 1; over 3rd Fork of Platte River, on road from St. Joseph to Hannibal, F. A. Proj. 205-C, Route 8, Sec. 3; Cass County, 2 on road from Belton to Harrison, one over Grand River, State Proj., Route 35.

Dent County, over Gladden and Spring Creeks, on road from Salem to Eminence, State Proj., Route 19; Douglas County, 2 sections; over Bryant Creek, on road from Ava to Mansfield, State Proj., Route 5; over Spring Creek, on road from Ava to Gainesville, State Proj., Route 7, Sec. 91;

Merced County, on road from Princeton to Trenton, State Proj., Route 3, Sec. 8; St. Louis County, 3 sections, over Merramec River, on road from St. Louis to Festus, State Proj., Route 30; over Overflow of Merramec River, on road from St. Louis, to Festus, State Proj., Route 30; over Ditch, over Fenton Creek Branch, and over Fenton Creek, on road from St. Louis to Festus, State Proj., Route 30.

Missouri—State Highway Dept., B. H. Piepmeyer, Ch. Engr., Jefferson City, Mo., let contracts to build 11 bridges as follows:

Pemiscot County, on road from Hayti to Arkansas State line, over Drainage Ditch No. 6, State Proj. Route 9, Sec. 148, to Pittsburgh-Des Moines Bridge Co., Des Moines, Iowa, at \$9667.90; Platt County, 2 on road from St. Joseph to Kansas City, State Proj. Route 1, Sec. 39, to Land Construction Co., St. Joseph, Mo., at \$10,787.20; Ripley County, 2 on road from Doniphan to Poplar Bluff, State Proj. No. 206, to Missouri Bridge & Iron Co., St. Louis, at \$20,739.63; St. Clair County, 3, on road from Appleton City to Butler, State Proj. Route 24, Sec. 13, to A. A. Davis & Co., Oklahoma City, Okla., at \$8880.10; Saline County, on road from Marshall to Glasgow, State Proj. Route 20, Sec. 31, to H. H. Havenkratt, Kansas City, Mo., at \$7606.20; Texas County, 2, on road from Cabool to Houston, State Proj. Route 7, Sec. 84, to Missouri Bridge & Iron Co., at \$20,675.23. (Lately noted.)

Mo., St. Louis—Details under Sewer Construction.

Okla., Pauls Valley—Garvin County Commrs. plan building bridge over Washita River, northeast of city.

S. C., Spartanburg—Spartanburg County, Spartanburg, S. C., will build and improve 2 bridges. Details under Road and Street Construction.

S. C., Sumter—State Highway Dept., Columbia, S. C., will receive bids until June 14 to build 4 creosoted timber bridges; plans, etc., from Lee, Pennell & Murray, Engrs., Sumter.

Tex., Brownwood—Brown County Commrs. Court, R. E. Lee, County Judge, plans building bridge across Pecan Bayou; voted \$35,000 bonds. (Lately noted.)

Tex., San Antonio—Bexar County contemplates constructing reinforced concrete culvert, 12 mi. from city on Culebra road. Address County Engr.

Tex., Uvalde—Uvalde County, H. C. King, County Judge, let contract to J. W. Hood, Uvalde, at \$5992.26, to construct reinforced concrete drainage structures on 5 mi. S. H. No. 3.

Va., Luray—State Highway Dept., H. G. Shirley, Chmn., Richmond, Va., let contract to M. C. Turner, Roanoke, Va., at \$14,969.99, to build 2 bridges over Dry and Pass Runs on

Lee Highway in Page County. (Lately noted.)

W. Va., Logan—Logan County, T. J. Wy-song, County Clk., let contract to Pete Minotti Construction Co., Logan, at \$15,300, to build substructure of Peach Creek Bridge across Guyandotte River. (Lately noted.)

Canning and Packing Plants.

Ala., Selma—Carl Scudder, representing Alexandria Packing Co., of Alexandria, Ind., considering establishing branch vegetable canning plant.

Fla., St. Augustine—Black Triangle Fisheries, Inc., capital \$20,000, was chartered with Helen L. Altcheson, Pres.; J. E. Altcheson, Sec.-Treas.

Mo., Springfield—T. F. Wallace of Springfield Packing Co., contemplates erecting packing plant and stock yards at cost of \$300,000; brick and concrete.

S. C., Greenwood—Yancey M. May, 4th Floor National Bank, contemplates erecting cannery. (See Machinery Wanted—Canning Machinery.)

Va., Portsmouth—Carlisle-Labold Co. acquired Deegans Fire Brick and Clay Co.'s property in Coal Grove; will erect plant for manufacture of plain and ornamental brick.

W. Va., Fairmont—Fairmont Provision & Packing Co., capital \$50,000, was incorporated by M. A. Jolliffe, John Hagan and others.

Clayworking Plants.

N. C., Four Oaks—W. M. Layton Brick Co., W. M. Layton, Pres., leased plant of Meadow Brick Co and will operate; daily output 40,000.

Okla., Cushing—Cushing Brick Co., capital \$25,000, incorporated by John B. Bellis, Amos Brandenburg, James M. Dale.

Tenn., Alcoa—Alcoa Brick Works, V. J. Hulquist, Mgr., contemplates increasing capacity of plant from 900,000 to 1,000,000 brick daily.

Tex., Dallas—Dallas Pottery Co., Taylor Jackson, Mgr., has 7 1/2 acre site at Love Field and will erect a plant for manufacturing churns, flower pots, vases, etc.

Coal Mines and Coke Ovens.

Ky., Pineville—Cumberland Straight Creek Coal Co., capital \$20,000, was incorporated by Joe F. Shaffer, H. J. Gibson and others.

Ky., Whitesburg—Knott Coal Corp., L. N. Buford, Pres., Roanoke, Va., will erect tipple, open new mines, etc. (Lately noted increased capital to \$500,000.)

West Virginia—Kentland Coal & Coke Co., Edward J. Berwind, Pres., 11 Broadway, New York, increased capital to \$7,500,000.

W. Va., Charleston—Morrison-Enochs Coal Co., capital \$25,000, was incorporated by S. V. Morris, I. F. Somerfield, both Charleston; W. S. Enochs, Ranger, W. Va.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

W. Va., Killarney—Killarney Smokeless Coal Co., James Gorman, Pres., Peoples Bank Bldg., Lynchburg, Va.; Philip Konrad, Mgr. Killarney; changed name from Mead Tolver Coal Co., has coal lands under development, capacity 15,000 to 20,000 tons per month.

Concrete and Cement Plants.

Md., Baltimore—Cast Stone Products Co., Abram Moses, Pres., 16 S. Eutaw St., will erect plant at 3rd. and Maryland Aves. Brooklyn for the manufacture of water proof building blocks, will reproduce building stone in cast-stone, hollow tile and solid blocks; construction of plant begun.

Cotton Compresses and Gins.

Fla., Bonifay—Bonifay Gin Co., capital \$7500, was incorporated with W. E. Shelfer, Pres.; J. T. Evans, Sec.

Miss., Batesville—Planters Gin Co., capital \$14,000, was incorporated by P. T. O'Brian, L. B. Lester and others.

Miss., Louise—Louise Gin Co., capital \$10,000, was incorporated by Doyle Seward, B. E. Kern and others.

Tex., Idalou—Idalou Gin Co., capital \$20,000, was incorporated by G. A. Simmons, R. R. Gillilan, W. R. Vaughn.

Tex., Lubbock—Farmers Gin. Co., capital \$12,000, was incorporated by C. E. Maedgen, C. E. Morman, J. B. Hearrell.

Tex., Memphis—Memphis Compress Co. of Memphis and Greenville, Tex., capital \$100,000, was incorporated by Robt. L. Rash, F. J. Phillips and Frank Phillips, Jr.

Cottonseed-Oil Mills.

La., Shreveport—Henderson Cotton Oil Mill let contract for rebuilding plant; cost \$20,000.

Tex., Fort Worth—Mutual Cotton Seed Oil Mill, incorporated by T. B. Yarbrough, W. E. Connell, L. P. Davidson.

Drainage Systems.

Miss., Sledge—Indian Creek Drainage Dist., of Tunica, Quitman and Panola Counties, R. F. Jepson, Commr., let contract to The Callahan Construction Co., Dallas, Tex., to construct 300,000 cu. yds. levee embankment work, consisting of enlarging part of levee on west side of the district and building extension levee at south end of the district; embracing about 45,000 acres delta land; Morgan Engineering Co., Engrs., Alliance, Ohio.

Electric Light and Power Plants.

Ala., Ensley—For full details see Land Developments.

Ala., Montgomery—Alabama Power Co., Birmingham, Ala., has begun rebuilding Tallassee dam, destroyed by flood in 1920; cost approximately \$500,000; develop 10,000 H. P.; will construct transmission line from Montgomery to Tallassee; J. M. Berry, Dist. Mgr.

Fla., Miami Beach—Miami Beach Electric Co. will expend \$150,000 for improvements to plant.

Fla., Miami Beach—For full details see Road and Street Construction.

Ky., Paducah—Paducah Electric Co., awarded contract to Stone & Webster, Inc., 147 Milk St., Boston, Mass., for designing and constructing modern power station; first bay of the building will be built adjoining the present station at Second and Jefferson Sts. and design will allow for expansion by adding more bays up to 15,000 K. W. or more; structure will be 104x25 ft.; steel, frame construction, with brick walls and stone trimmings; will install 2500 K. W. Westinghouse turbo-generator and a 612 H. P. Sterling boiler with chain grate stokers and necessary auxiliary equipment and complete coal handling equipment for conveying coal from cars through crusher and overhead bunker to new stoker and to floor of present boiler room, also equipment to facilitate handling of coal to and from yard storage; estimated cost \$370,000. (Lately noted.)

La., Hammond—For full details see Ice and Cold Storage Plants.

Md., Hagerstown—Williamsport Power Co., Williamsport, Md., later to be known as Potomac Edison Co., with office at Hagerstown, has applied for authority to issue \$4,414,300 of bonds and preferred stock and 25,000 shares of common stock with no par value; new company plans to consolidate street and interurban railway lines of Hagerstown and Frederick Electric Railway Co., and street railway, light and power properties of Cumberland Electric Ry.; has purchased and will complete generating plant at Williamsport; officers of the Potomac Edison Co. include M. F. Riley, Pres.; C. M. Harris, Vice-Pres., both of Hagerstown, R. Paul Smith, Gen. Mgr., Cumberland; Emory L. Coblenz, Hagerstown, Chmn. of Board.

Miss., Louisville—City, John O. Bennett, Mayor, votes June 12 on \$30,000 bonds for purchasing additional machinery for light plant. (Lately noted.)

Mo., Republic—City will vote June 5 on proposition to grant electric franchise to J.

R. Woodfill, representing Lawrence County Light & Power Co., of Aurora, Mo.

N. C., High Point—For full details see Land Developments.

N. C., Walnut Cove—City is having plans prepared by J. B. McCrary Co., Atlanta, Ga., for hydro-electric plant and for water and sewer systems.

Okla., Minco—City votes June 26 on granting 25-year franchise to Chickasha Gas & Electric Co. Address The Mayor.

Okla., Oklahoma City—Oklahoma Hydro-Electric Co., capital \$10,000, incorporated by Abram Stanfield and Tracy Wilkerson both of Tulsa, M. A. Schull of Oklahoma City.

S. C., Charleston—City, Louis D. Rubin, Chmn. of Lighting Comm. is considering installation of street lighting system.

S. C., Heath Springs—City, E. C. Bridges, Mayor, lately noted voting \$35,000 bonds for electric light system and water works, will expend \$17,500 for construction of 11 mi. of transmission line connecting Lancaster and Heath Springs; Ryan Engineering Co., Engrs., Columbia, S. C. (See Machinery Wanted—Electrical Equipment.)

Tenn., Covington—City contemplates erecting building at cost of \$12,000 and installing oil burning power plant at cost of 17,000. Address The Mayor.

Tex., Canyon—City, A. J. Arnold, Mgr., will install white way.

Tex., Frisco—Details under Water Works.

W. Va., Weston—Weston Electric Light, Power & Water Co. applied for franchise to extend lines to Shadybrook, Fair Grounds, Weston, Halesville, etc.

Fertilizer Plants.

Fla., Miami—Florida East Coast Fertilizer Co., capital \$200,000, was incorporated with M. C. Alford, Pres.; Thomas B. Nuttall, Sec. Treas.

Fla., Tampa—C. C. Nott, Pres. Board of Trade, is chairman of committee investigating proposition of incorporating the United States Export Chemical Co. to build double superphosphate plant on Hillsborough River near Tampa; cost \$1,500,000; Chemical Construction Co., Peter S. Gilchrist, Pres., Charlotte, N. C., will supervise construction; company will have 4000 acres of phosphate lands at Dover, Sidney, and in vicinity of Plant City; Mr. Gilchrist wires the Manufacturers Record, "Proposition not definitely decided."

La., Hammond—For full details see Ice and Cold Storage Plants.

Valuable Assistance to Your Sales Organization

Every business day in the year we publish a

DAILY BULLETIN

giving dependable and prompt information of industrial undertakings, important building and construction operations and State, County and municipal improvements in the entire South and Southwest. If you sell Machinery and Supplies, Railroad or Contractors' Equipment or are an Architect, Contractor or Builder this inexpensive daily news service would prove invaluable to you.

*Write us for a sample copy of the Daily Bulletin.
Complete information will be promptly furnished.*

MANUFACTURERS RECORD

BALTIMORE, MD.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Flour, Feed and Meal Mills.

Mo., Springfield—Lipscomb Grain & Seed Co., Caleb Lipscomb, Pres., will erect 40,000 bu. capacity elevator; cost approximately \$40,000.

Tex., Celina—Celina Mill & Elevator Co., lately noted incorporated with \$100,000 capital, organized with B. F. Smith, Pres.; W. R. Smith, Sec.; will open bids July 1 to construct flour mill, 4 stories, 32x50 ft., mill construction, daily output 150 bbls.; open bids in July for mill machinery to cost approximately \$20,000. (See Machinery Wanted—Flour Mill Machinery.)

W. Va., Bluefield—Bluefield Milling Co., capital \$100,000, was incorporated by J. L. Alexander, R. C. Berry, W. J. Cole.

Foundry and Machine Plants.

Ky., Louisville—National Forge Co., increased capital from \$75,000 to \$100,000.

Mo., St. Louis—General Conveyor & Mfg. Co., capital \$100,000, incorporated by C. C. and John Maurer, H. J. Frisch.

Tex., San Antonio—Lead Pipe—William A. Burr, Monterey, Mexico and others, are organizing \$100,000 company to establish plant for the manufacture of lead pipe and sheet lead products, with daily capacity of 10 tons.

Gas and Oil Enterprises.

Ala., Ensley—For full details see Land Developments.

Fla., St. Petersburg—Details under Land Developments.

Mo., Jefferson City—National Refining Co., A. C. Diemler, Mgr., will erect \$25,000 plant and station at High and Cherry Sts.

N. C., Mt. Olive—Standard Gas Co. was incorporated by I. F. Witherington, W. H. Kornegay, J. H. Loftin.

Okla., Bartlesville—Bartlesville Oil Products Co., capital \$12,000, incorporated by J. R. Fournier, J. R. Miller, C. F. Laizure.

Okla., Oklahoma City—Sunland Oil & Gas Co., capital \$200,000, was incorporated by E. A. Phillips, W. J. Armstrong and others.

Okla., Tulsa—Cincinnati Oil & Gas Co., capital \$100,000, was incorporated by Richard B. Hartman, Jr., R. I. Shanks, J. A. Duff.

Okla., Tulsa—Queen Royalties Co., capital \$100,000, incorporated by Seyd Havens, J. Earl Amiss, Herman Rabun.

Okla., Tulsa—Marion Oil & Gas Co., capital \$100,000, was incorporated by H. E. Daulton, D. H. Bingham, G. D. Peters.

Okla., Tulsa—Canadian Oil Corp., capital \$25,000, was chartered by John D. Sanford, W. E. Downing, and others.

Okla., Wetumka—Far-Mac Royalty Corp., capital \$100,000, was chartered by W. C. Farmer, X. X. McGee, Fred Andrews.

S. C., Gaffney—Victor Cotton Oil Co. increased capital from \$25,000 to \$120,000.

Tex., Austin—Capital Petroleum Co., capital \$10,000, was incorporated by J. B. Jarmon, D. C. Donaldson, and others.

Tex., Beaumont—West Pine Island Oil Co., capital \$30,000, was incorporated by R. S. Tatum, H. West and M. J. Jorgansen.

Tex., Fort Worth—Fearis-Givens Oil Co., capital \$85,000, was incorporated by J. H. Givens, M. C. G. Fearis, R. A. Hunter.

Tex., Liberty—South Liberty Oil Co., capital \$60,000, was incorporated by E. B. Pickett, Sr., H. A. Dismukes and F. B. Fuson.

Tex., Martindale—Crescent Oil Co., capital \$50,000, incorporated by R. E. Martindale, E. L. Crook, M. E. Barrow.

Tex., Moran—Mexia Square Deal Oil & Gas

Co. of Cisco, Texas has franchise to supply gas for lighting and heating.

Tex., Orange—K. Kiski has acquired holdings of Orange Petroleum Co.

Ice and Cold-Storage Plants.

La., Hammond—Louisiana Utilities Manufacturing & Agricultural Co., capital \$1,000,000, was incorporated with Charles Weinberger, Pres., New Orleans, La.; H. G. Hungate, Sec., Hammond; will erect ice manufacturing and cold storage plant, increase capacity of electric light plant, proposes to erect fertilizer factory.

Tex., Galveston—Magnolia Ice & Cold Storage Co., capital \$50,000, incorporated by D. Rossi, R. H. Kelley, M. E. Kurth.

Iron and Steel Plants.

Tex., Fort Worth—Texas Steel Co., John H. Kirby, Houston, Tex., and others, organized with capital stock of \$2,500,000, takes over plant of George W. Armstrong & Co., and will convert into electric steel plant for the manufacture of merchant and reinforcing steel bars, steel castings and oil well supplies and cotton ties; initial capacity 50,000 ton per annum; mills and oil well supply equipment is installed; Pittsburgh Furnace Corp., Contr., Pittsburgh, Pa.

Land Developments.

Ala., Bessemer—Bradley Real Estate & Insurance Co. was incorporated by W. W. Hollingsworth, K. G. and M. N. Bradley.

Ala., Birmingham—Edgewood Amusement Co., Inc., Glover McGregor, Pres., acquired Edgewood Park and will expend \$15,000 for improvements; will install filtration plants for swimming pool, each with tank capacity of 500,000 gal. every 24 hours; will remodel dance pavillion, construct 14 ft. cement sidewalks, etc.

Ala., Ensley—Dupuy-Burke Realty Co., capital \$5000, J. A. Dupuy, Pres.; A. W. Smith, Sec.; will develop 10 acres for subdivision; will install gas, water and electric lights; Robert Totten, Const. Engr., Brown-Marx Bldg., Birmingham, Ala. (Lately noted.)

Ark., Little Rock—Board of Directors of Arkansas State Fair Assn., Mayor Brickhouse, Pres., contemplates establishing fair grounds and park.

Fla., Daytona—L. E. Holmes and J. B. Pacetti of Florida East Coast Development Co. plan extensive development of Toronita Beach; will install ornamental lighting system, improve river frontage by filling in and erecting retaining wall, develop parks, etc.

Fla., Eustis—The Allen Goves, Inc., capital \$10,000, was chartered with J. M. Allen, Pres.; Grace Rybolt, Sec.-Treas.

Fla., Lake Wales—Florida Growers Association, lately noted incorporated with \$50,000 capital, A. J. La Gess, Pres., will develop 3000 acres for suburban development; install water works, roads and streets, erect dwellings, etc.; H. P. Sturgis, Archt., Chicago, Ill.

Fla., Lakeland—Polk County Land Mortgage Co., capital \$100,000, incorporated with C. W. Deen, Pres.; Grady Deen, Sec.-Treas.; will develop citrus groves, etc.

Fla., Leesburg—Harry L. Kerl acquired 12½ acres and will develop for residential site; will construct streets, etc.

Fla., Miami—Twin City Land Co., capital \$50,000, incorporated with Vernon C. Seaver, Prest.; Thos. B. Hamilton, Sec.

Fla., Miami—Peter Pan Corporation, capital \$50,000, was incorporated with George H. Bell, Pres.-Treas.; Pearl Doles Bell, Sec.

Fla., Miami—Sago Investment Co., capital

\$10,000, was incorporated with R. D. Statt, Pres.; Opal Faris, Sec.-Treas.

Fla., Miami—Lawrence Holding Co., capital \$1,000,000, was incorporated with Joseph L. Hickson, Pres.; E. P. Grimes, Sec.-Treas.

Fla., Miami Beach—Miami Beach Investment & Holding Co., capital \$400,000, was incorporated with O. C. Newenkamp, Pres.; John H. Dresdach, Sec.-Treas.

Fla., St. Petersburg—C. Perry Snell will develop Granada Terrace for subdivision will develop in form of three terraces back of seawall, first section will be 1800 ft. of water front property about 30 in. above wall while the second and third will be 5 to 6 and 7 to 8 ft. respectively; will install paved streets, curbing, sidewalks, sewer, water, gas; plant trees and shrubbery, etc.

Fla., Tampa—Investment Corporation of Tampa, capital \$25,000, incorporated with T. C. Hammond, Pres.; T. L. Karn, Sec.

Fla., West Palm Beach—For full details see Miscellaneous Construction.

Ga., Atlanta—Piedmont Co. acquired 20 acres and will develop for subdivision.

Ky., Kenton—L. S. Stevens Realty Co., capital \$15,000, was incorporated by W. F. Simrall, Jr., Fort Mitchell, Ky.; Louise S. Stevens, Kenton, and others.

Ky., Madisonville—Parker Improvement Co., capital \$50,000, was incorporated by Sanford R. Parker, Wm. C. Morton, Jr., and others.

Md., Baltimore—Superior Realty Co., Inc., 400 Equitable Bldg., capital \$90,000, was incorporated by Phylburt E. Fine, Roy M. Nichols, Myron S. Cotton.

Mo., Kansas City—Stiles Realty Co., capital \$25,000, incorporated by F. E. and A. N. Stiles, G. T. Aughinbaugh.

Mo., St. Louis—Stanza & Co., Inc., acquired 42 acres and will enlarge Oak Grove Cemetery; will construct driveways, erect entrance, etc.

Mo., St. Louis—Sexton Building Corporation, incorporated by Ella H. Sexton, M. C. Kiernan and others.

Mo., University—Walsh-McLoney Co., capital \$15,000, was incorporated by R. A. Walsh, G. A. McLoney, Ed. J. Monti.

N. C., Charlotte—Mecklenberg Nurseries, Inc., capital \$50,000, was incorporated with S. R. Howell, Pres., Knoxville, Tenn.; S. A. Ault, Sec.-Treas.

N. C., High Point—Own-A-Home Co., Inc., lately noted incorporated with \$100,000 capital, organized with S. C. Clark, Pres.; R. E. Snow, Sec.; will develop 6 acres for home-site; install electric lighting system; sewer, water works, roads and streets; erect number of dwellings.

Tenn., Chattanooga—American Business Club, Charles O. Hon, 619 Walnut St., promoting City issue of \$150,000 bonds for establishing parks and playgrounds.

Tex., Dallas—Abernathy Floral & Nursery Co., capital \$30,000, incorporated by F. W. Abernathy, O. A. Munk, H. M. Munger.

Tex., El Paso—W. K. Marr, W. R. Piper, Winchester Cooley and others are interested in organizing company to establish auto tourist camp; will expend about \$40,000.

Tex., Houston—Magnolia Fig Orchards Co., capital \$10,000, was incorporated by J. H. Howard, J. R. Koster and others.

Tex., Ligon—Ligon Townsite & Improvement Co., was incorporated by E. Dick and Bob Slaughter, G. T. Veal.

Va., Heathsville—Chesapeake Colonial Club organized by Paul E. Evans of Washington, D. C. and others is having plans prepared by Philip N. Sterne, Archt., Fredericksburg,

Va. for clubhouse and other buildings in connection with development of 2000 acres along the Potomac for golf course, athletic course, etc.; cost of development \$500,000.

Va., Norfolk—Gulf Stream Nurseries, 201 E. Plume St. lately noted incorporated with \$100,000 capital, F. W. McKinney, Pres.; will develop 1000 acres for nursery.

W. Va., Charleston—Beverly Hills Land Co., capital \$50,000, incorporated by A. J. Peck, S. A. Moore, John L. Dickinson.

W. Va., Huntington—J. A. Hughes of Ashland, will develop 40 acres for subdivision; will pave streets, install city water; construct sewers, build dwellings, etc.; R. Breese, Const. Engr. Lately noted. (See Machinery Wanted—Building Materials.)

W. Va., Huntington—C. R. Thomas will develop Monel Park, tract of 37 acres for subdivision; has let contract for grading of complete system of roads; will install water, etc.

W. Va., Weirton—Weirton Mutual Realty Co., capital \$25,000, was incorporated by Thomas G. Half, A. C. Donnell, L. A. Whitaker.

Lumber Manufacturing.

Ala., Dallas County—Nadawah Milling Co., Nadawah, Ala., have purchased 14,000,000 ft. of pine timber, will develop.

Ala., Eufala—Pine Lumber Co., capital \$55,000, was incorporated by J. E. McDonald, E. L. Shadrick, Burke Hood.

Ark., Ogemaw—Ogemaw Lumber Co., C. A. Buchner, Pres., has purchased timber tract between Ogemaw and Mt. Holly and begun construction of short line railroad for own use; plans are being made to eventually extend line to Lisbon and Wesson, Ark.

Fla., Bolton—Rocky Lumber Co., was incorporated with Hubert Ansley, Pres.; C. C. Ansley, Sec.-Treas.

Miss., Longview—McLean Lumber Co., Memphis, Tenn., will locate mills at Longview and connect log road with railroad at that point.

Miss., Poplarville—Stewart Lumber Co., capital \$20,000, was incorporated by J. P. Stewart, S. W. Hoskins and others.

S. C., Prosperity—Saner Lumber Co., incorporated with C. P. Saner, Pres.; George W. Harmon, Sec.-Treas.

Tex., Crockett—New Passo Lumber Co., capital \$25,000, incorporated by A. M. H. Stark, J. D. McCall, W. J. Sanders.

Va., East Radford—Forrest Products Co., capital \$100,000, was incorporated with G. M. Roberts, Pres., East Radford; H. H. Wheelwright, Sec., Richmond, Va.

Metal-Working Plants.

Ala., Gadsden—Ideal Cap Co., Ltd. (lately noted incorporated, capital \$10,000) organized with L. B. Rainey, Pres., will erect 100x150-ft. ordinary construction building; will install die casting machines, etc., for the manufacture of auto gas caps, radiator caps; daily capacity 3000; all machinery purchased; at present manufacturing in Nashville.

Fla., Miami—Mechanical Toys—M. E. Fidler, Route 1, Box 256½, will organize company to manufacture mechanical toys and other machines; install metal stamps, lathes, sheet metal gears, milling machines, dies, gasoline engine. (See Mch. Wanted—Engines (Gasoline); Metal Working Machinery.)

Mo., St. Louis—Bengal Manufacturing Co., capital \$100,000, incorporated by M. C. Robinson, R. W. Moore, C. L. Bradley; manufacture spark plugs, oil and gas engine parts, etc.

Mo., St. Louis—American Metal Products Corp., capital \$50,000, incorporated by Sam Kauffman, Edwin O. Beyer and Eugene L. Taylor.

Mo., St. Louis—Fans and Motors—Lee Duncan Electric & Manufacturing Co., 4441 Manchester Ave., capital \$50,000, was incorporated with Lee J. Duncan, Pres.; Henry A. Duncan, Sec.; will establish plant for manufacture of electric fans and motors, daily capacity 25; will install punch presses, turret lathes, screw machines, milling machines, shapers, multiple drills, etc. (See Machinery Wanted—Metal Working Equipment.)

Mo., St. Louis—Frictionless Metal Co., capital \$27,354, was incorporated by A. B. Peterson, J. E. Bacon, J. E. Coffin.

Mo., St. Louis—Ahlhelm Bake Oven Builders & Supply Co., capital \$25,000, was incorporated by Peter Ahlhelm, Wm. Pedrolle, O. J. Karst.

Okla., Oklahoma City—Springs, etc.—Wise Manufacturing Co., Box 1202, Tulsa, Okla., capital \$15,000, was incorporated with W. K. Wise, Pres.; S. C. French, Sec.-Treas. and Mgr., has machinery for present needs; will manufacture platform springs and automobile snubbers.

Tenn., Chattanooga—Chattanooga Wheelbarrow Co., 14th and Belt R. R. R. C. Willingham, Jr., Mgr. will erect 60x125-ft. steel shop, costing \$10,000; construction by owners; install small punch, 14x15-in. throat; daily capacity of plant 200 steel wheelbarrows. (See Machinery Wanted—Punch.)

W. Va., Charleston—Metal Products Co., capital \$25,000, was incorporated by J. T. Flynn, Charles E. Kitchen, Joe L. Silverstein.

Mining.

Ky., Marion—Fluorspar—Pigmy Corp., capital \$20,000, was incorporated by George B. Fraser and F. H. Burgher, Washington, Ky.; C. S. Nunn, Marion; mine fluorspar.

Tex., San Antonio—Standard Fullers Earth Co., capital \$25,000, was incorporated by E. D. Nims, Philip Saunders, John H. Bickett, Jr.

Va., McLean—Brandy Mining Corp., capital \$50,000, chartered with John W. Traver, Pres., Washington, D. C.; John C. Mackall, Sec., McLean.

Va., Wytheville—Chiswell Hole Zinc Corp., capital \$100,000, chartered with I. A. Freedman, Pres., Pittsburgh, Pa.; J. C. Blair, Sec., Trafford, Pa.

Miscellaneous Construction.

Fla., West Palm Beach—Sea Wall, etc.—City will vote on \$200,000 bonds to complete payment for high pressure water system, provide seawalls, athletic field, park improvements, finish Memorial Library, etc. Address City Mgr. Wright. (Previously noted.)

N. C., Wilmington—Storage Tanks—Atlantic Gulf Refining Co., will erect \$150,000 oil storage plant on Cape Fear river; plans include steel storage tanks of several million gallon capacity, and pump house 14x20-ft., constructed of steel or brick and concrete; W. H. Beadley, special representative, Atlanta, Ga.

S. C., Florence—Swimming Pool, etc.—M. M. Brown, Box 355, will expend about \$5000 to develop 200 acre farm, construct swimming pools, build bath houses, pavilion for dancing, dining room, etc., boating and fishing, also camping grounds for tourists; install lighting system, etc.; also contemplate boring well. Lately noted as improving site known as Muldrow's mill. (See Machinery Wanted—Lighting System; Cable; Canoes.)

Tex., Aransas Pass—Levees—City, J. A. Zimmerman, Mayor, let contract to John Jacobson, Galveston, Tex., at \$200,000 to construct about 3 ml. levees along water front; levees to be built by dredging from the bay, requiring approximately 700,000 cu. yds.; Geo. W. King, Engr., Aransas Pass, Tex. (Lately noted.)

Tex., Galveston—Seawall—City, will extend east end of seawall, to south jetties, distance of 2860 ft., reinforced concrete construction and will conform in all respects to completed portion; War Dept., appropriated \$670,000; are now assembling materials; will also restore Galveston channel to 30 ft. deep and 1200 ft. width, \$200,000 available. Address The Mayor.

Tex., Houston—Wharves, etc.—Navigation District Comsn. let contract to List & Gifford, Dallas, Tex., for dry excavation (400,000 cu. yds.) on site of six wharves to be built on north side of turning basin, estimated cost \$216,000; excavation will include site for new railroad to serve wharves; general improvement plans for port include construction of about six wharves, grain elevator and wharf, railway yards, trackage and connection, roadways on port property, water supply and electric system; sold \$4,000,000 bonds. (Lately noted.)

Tex., Rockport—Breakwater—City will receive bids until June 8 for construction of breakwater; has \$42,000 available. Address City Secretary.

Tex., Sabine Pass—Jetties—U. S. Engineer Office, Galveston, Tex., receives bids until June 22 to repair, build up and extend west jetty.

Tex., San Antonio—Incinerator—City contemplates making additions to incinerator plant; has about \$100,000 available; Ray Lambert, Commr. of Parks and Sanitation.

Miscellaneous Enterprises.

Ala., Albany—Albany Oil Co., capital \$10,000, was incorporated by R. L. Crawford, J. B. Gambill and others.

Ala., Birmingham—Highland Apartment Co., incorporated with B. R. Pegram, Pres.; George E. Danhan, Sec.-Treas.

Ala., Fairfield—Fairfield Electric Co., Inc., was incorporated by J. W. and L. N. Gruenholz and others.

Ala., Gadsden—American Billiard Supply Co., Inc., capital \$20,000, was incorporated by C. H. Blum, I. Zemurray, Ike Saks.

Ala., Gadsden—Times-News Printing Co., J. L. Meeks, Mgr., will erect 40x125-ft. fireproof building, bids open; will install printing press: Lately noted. (See Machinery Wanted—Printing Press.)

Ark., Camden—Arkansas-Louisiana Navigation Co., capital \$200,000, was incorporated with Capt. Fred D. Doty, Pres., Philadelphia, Pa.; Capt. J. C. Wright, Sec.-Treas., Camden.

Fla., Boynton—Shore Acres Co., capital \$250,000, was incorporated by Ward B. Miller and others; will establish dairy plant at Shore Acres farm, install laboratory equipment, etc.

Fla., Leesburg—Amusement Park—Echo Glen Bathing Beach & Park, Stephens and McEaddy, Proprs. will improve park, installing toboggan slide, flying Jinny, etc., build board walks, bathing pools and purchase boats.

Fla., Miami—Contracting—John W. Rolins Co., capital \$25,000, was incorporated with J. W. Williams, Pres.; John W. Rolins, Sec.-Treas.

Fla., Orlando—Orange Court Apartment Hotel, capital \$300,000, was incorporated with

R. E. Grabel, Prest.; W. B. Crawford, Sec.-Treas.

Fla., Tampa—Drugs—Isaac S. Levy, Inc., 302 S. Morgan St., capital \$150,000, was incorporated by Isaac S. Levy, Isaac S. Craft, G. C. Warren.

Fla., West Palm Beach—Riddle Engineering Co., Room 705 Guaranty Bldg., (lately noted incorporated, capital \$10,000) organized with Karl Riddle, Pres.; L. H. Riddle, Sec.-Treas. (See Machinery Wanted—Dredging Equipment.)

Ga., Atlanta—Georgia Yam Curing Co., capital \$1,000,000, was organized with John A. Manget, Pres.; D. H. Beck, Mgr., will install potato curing system.

Ky., Boyd—Hyman-Binson Co., capital \$12,700, was incorporated by Isadore S. Hyman, B. C. Binson, both Huntington, W. Va.; S. S. Willis, Ashland, Ky.

Ky., Fulton—Hornbeak Furniture & Undertaking Co., capital \$20,000, was incorporated by P. M. and J. A. Hornbeak and others.

Ky., Lexington—New Lexington Opera House Co., capital \$50,000, incorporated by C. H. Berryman, James A. Todd, J. C. Carrick.

Ky., Louisville—R. Baude Co., increased capital from \$25,000 to \$30,000.

Ky., Louisville—Andy Poh Machine Co., incorporated by Andy Poh, Louis H. Bernholt and others.

Ky., Louisville—Louisville Curtain & Blanket Co., was incorporated by Helen Mayer, Louise Stickel and others.

Ky., Newport—National Colortype Co., capital \$100,000, was incorporated by James H. Weaver, Lawrence Vogelpohl and others.

Md., Baltimore—M. & S. Hardware Co., 425 N. Eutaw St., capital \$50,000, was incorporated by Simon Malkin, Israel Silverstein and others.

Miss., Clarksdale—Martin Pure Milk Co., capital \$10,000, was incorporated by L. T. Martin, J. A. Martin, Sr., and others.

Miss., Vicksburg—Baer Shoe Co., capital \$10,000, was incorporated by Joe Baer, Louis Layens and others.

Mo., Kansas City—Independent Publishing Co., was incorporated by H. L. and L. P. Blackwell and others.

Mo., Peculiar—Jersey Milk Producers Co., capital \$10,000, was incorporated by L. Mayfield, L. T. Bland and others.

Mo., St. Louis—Abeln Bros. Cigar & Tobacco Co., Inc., capital \$50,000, incorporated by C. J. and H. J. Abeln and others.

N. C., Charlotte—J. G. Robinson Cantilever Shoe Co., capital \$25,000, was incorporated by J. G. and Marlon E. Robinson and others.

N. C., Durham—Hair Nets—Southern Commercial Co., capital \$100,000, was incorporated with G. F. Mayes, Pres.; L. H. Bryant, Sec.-Treas.

N. C., Elkin—Elkin Hotel Co., capital \$100,000, was incorporated by A. G. Click, E. M. Smith and E. F. McNeer.

N. C., Greenville—Morris & McKay Building Co., organized by A. E. Morris, Frank T. Morris and others.

N. C., Winston-Salem—Forsyth Dairy Co., let contract to Frank L. Blum & Co. for addition to plant on West 2nd St., steel, brick and concrete, fireproof construction; 53x103-ft., 2 story, concrete floor and roof; cost \$35,000; Engineer Sales Co., Winston-Salem, N. C., has contract for all structural steel and miscellaneous iron work; will install machinery. (Lately noted.)

Okla., Blackwell—John A. Nelson & Co.,

capital \$50,000, incorporated by John A. Nelson, Eva M. Hancock and others.

Okla., Oklahoma City—Harris Levy Co., capital \$20,000, incorporated by Sam Harris, Joseph A. Levy, and others.

Okla., Tulsa—Goss-Rogers Clothing Co., capital \$25,000, incorporated by W. E. Rogers, Burnett Goss and others.

S. C., Charleston—Pope Contracting Co., capital \$10,000, was incorporated with C. P. Pope, Pres.-Treas.; Beulah M. Pope, V. P. and Sec.

S. C., Columbia—Columbia Orange Crush Bottling Co., incorporated with Earl Henson, Pres.-Sec. and Treas.

S. C., Greenville—Textile Furniture Co., 104 Augusta St., capital \$12,000, was incorporated with W. L. Armstrong, Pres.; C. B. Holliday, Sec.-Treas.

S. C., Greenville—Southern Distributing Co., capital \$25,000, was incorporated with Kenneth Baker, Pres.; R. S. Dunlap, Sec.-Treas.

S. C., Spartanburg—The Hewitt Co., capital \$30,000, incorporated with Clarence E. Hewitt, Pres.; Ethel M. Hewitt, Sec.

Tenn., Chattanooga—Stoops Bill Posting & Advertising Co. will erect building on Market St.; estimated cost \$95,000.

Tex., Commerce—American Furnace Co., capital \$10,000, was incorporated by T. H. Nelson, W. F. McGlasson, J. V. Adams.

Tex., Corsicana—Corsicana Theatres, Inc., capital \$30,000, was incorporated by Louis L. Dent, John Poxton, T. B. Noble, Jr.

Tex., Dallas—Phil H. Pierce Co., capital \$25,000, was incorporated by Phil H. Pierce, A. F. Cowand and others.

Tex., Dallas—Fox Film Corporation, was chartered by T. O. Mitchell, E. V. Everitt, J. H. Gardner.

Tex., Del Rio—Producers' Wool & Mohair Co., capital \$50,000, incorporated by J. O. Taylor, F. W. Herbst, L. Rust.

Tex., Fort Worth—Fort Worth Development Co., incorporated by R. L. Walker, C. Cook, D. B. Brooks.

Tex., Fort Worth—Pangburn Co., increased capital from \$25,000 to \$60,000.

Tex., Houston—Jacobe Brothers Electrical Co., capital \$50,000, incorporated by R. L. and H. W. Jacobe, W. T. Boyd.

Tex., Houston—Eagle Bottling Works, Inc., capital \$100,000, incorporated by P. C. Delbarto, G. Butera.

Tex., Houston—Standard Construction Co., capital \$10,000, was incorporated by E. A. Fretz, C. R. Berry and others.

Va., Norfolk—Virginia Ostrich Farm, Inc., 1623 Claiborne Ave., organized with C. C. Shelton, Pres.; A. Reid Hudnall, Mgr.; let contract to Edw. F. Gray, Norfolk, to erect offices, small buildings and enclosures of ordinary construction for ostrich farm; install incubators. (Lately noted incorporated, capital \$15,000.)

Va., Richmond—W. H. Miles Shoe Co., was incorporated with C. B. Snow, Pres.; John L. McElroy, Sec.

W. Va., Charleston—Mutual Printing Co. will build 2 story, brick and concrete building on 106 Hale St., costing \$30,000.

W. Va., Fairmont—Parent Advertising System, capital \$50,000, was incorporated by Geo. C. Rice, Lawrence L. Sallade, both Fairmont; Harry C. Leonard, Morgantown, W. Va.

W. Va., Welch—Adkins Construction Co., capital \$25,000, was incorporated by L. E. Woods and I. C. Turner both Welch; H. H. Baldwin, Gary, W. Va.

Miscellaneous Factories.

Ala., Mobile—Spiro's Bakery Co., Inc., capital \$8000, was incorporated by Spiro Dragonas, Apostolos Giannarous, Charles Capatanokis; will establish bakery.

Ark., Little Rock—Mattresses, etc.—Burton-Dixie Corporation, main office, Chicago, Ill. has building and will improve and equip for manufacturing Jappa felt mattresses, automobile cushions, etc.

Fla., Lake City—Lake City Dehydrating Co., Archie K. Purdy, Pres.-Mgr. will erect 100x40 x18-ft. mill construction building; bids opened.

Fla., Miami—Miami Maid Cigar Co., capital \$10,000, was incorporated with W. C. Neal, Pres.; A. A. Aurelio Torres, Sec.; will manufacture cigars, cigarettes, etc.

Fla., Tampa—Paper—Roesch Paper Co., Henry Roesch, Pres., Franklin and Hampton Sts. will erect plant on South Florida Ave.; 3 stories; reinforced concrete; 150x100 ft.; will treble capacity of present plant with addition of machinery and other equipment.

Ky., Fulton—Hornbeak Brothers Bakery Co., capital \$25,000, was incorporated by P. M. and J. A. Hornbeak and others.

Ky., Lexington—Undergarments—A. M. Jelf, Manufacturing Co., 238 W. Main St., lately noted incorporated with \$25,000 capital, organized with A. M. Jelf, Pres., John R. Humphreys, Sec.; has plant and will manufacture undergarments. (See Machinery Wanted—Textile Material.)

Ky., Owensboro—Mix Conserve & Mfg. Co., capital \$25,000, was incorporated by Mary C. Payne, Arthur W. Dawson and others.

Md., Baltimore—National Asphalt Burial Vault Co., temporary address 2546 Edmondson Ave., J. Henry Strohmeier, Pres., will erect plant 50x158 ft. brick and concrete, fireproof; will manufacture patented asphalt grave vault; will install oil or steam burners to large boiling vats; contract let to Piel Construction Co., 2546 Edmondson Ave. (Lately noted.)

Md., Baltimore—Cakes—Baltimore Pound Cake Co., 710 N. Gay St., lately noted incorporated with \$50,000 capital, organized with Wm. F. Fetherolf, Pres., 411 W. Lexington St., Ethel M. Fetherolf, Sec.; has installed cake mixing machine and will soon install icing and wrapping machines.

Md., Baltimore—National Milk Bottle Cap Co., 225 N. Frederick St., capital \$300,000, was incorporated by Lawrence E. Davis, Lemuel T. Cooksey, C. Herbert Clayton; will manufacture paper crowns, cartons, etc.

Mo., Kansas City—Lange Creamery, Inc., capital \$15,000, incorporated by J. F. Lange, C. R. L. Schuler, T. T. Kenney.

Mo., St. Louis—Peerless Weatherstrip & Caulking Co., capital \$250,000, was incorporated by F. A. Ruf, C. W. Barth, J. E. Callahan; will manufacture weather stripping, caulking and glazing compound.

Mo., St. Louis—Geo. R. Cummings, Jr., Co., capital \$40,000, incorporated by Minnie K. Cummings, F. W. Morse, Michael Cullen; will manufacture boot and shoe supplies, dressings, etc.

N. C., Elizabeth City—Winecream Co. merged with Carolina Dairy Products Co.; has plant and will manufacture ice cream.

N. C., Horse Shoe—Cheese—North Carolina Cheese Makers Assn., Will Heffner, Valle Crucis, N. C., Pres.; Carter Fathering, Sweet Water, N. C., Sec.; will erect cheese factory.

Okla., Tulsa—Jolidon Baking Co., capital \$15,000, incorporated by Laurence A. and Bert E. Jolidon and others.

S. C., Spartanburg—Calcon Manufacturing Co., C. L. O'Neale, Pres., increased capital stock from \$20,000 to \$100,000.

Tenn., Cleveland—Textile Soaps, etc.—Manufacturers Soap & Chemical Co., capital \$50,000, incorporated with Geo. S. Hardwick, Sr., Pres.; Geo. L. Hardwick, Jr., Sec.-Treas.; will erect 3-story, steel and concrete building for manufacture of textile soaps, oils and softeners for woolen, silk and cotton manufacturers, etc.

Tenn., Knoxville—Reliance Overall Co., 321 Central Ave., let contract to Brimer & England, to construct addition of two stories to present manufacturing plant; Tyno & Brackney, Archts; cost \$25,000.

Tenn., Nashville—Lyve Wyre Manufacturing Co., was incorporated by W. W. Burton, O. R. Robertson, and H. A. Williams; will manufacture batteries.

Tex., Acme—Cement Plaster—Certainteed Products Corp., Boatmen Bank Bldg., St. Louis, Mo., acquired Acme Cement Plaster Mills; will enlarge and increase developments.

Tex., Houston—Lone Star Creamery Co., capital \$200,000, incorporated with Ralph Feagin, Pres.; acquired creamery plants of Magnolia Dairy Products Co. and Clover Leaf Dairy Farm and will operate.

Tex., Seguin—Guadalupe Creamery, lately noted incorporated with \$25,000 capital, was organized with P. C. Welneit, Pres.; Benno du Menil, Sec.; let contract to Paul Schriener, Seguin, to construct 35x60 ft., fireproof creamery; will install ammonia compressor, ice cream and creamery machinery; cost of equipment \$12,000; already purchased.

Va., Lynchburg—Smith Manufacturing Co., capital \$100,000, was incorporated with R. L. Smith, Pres.; E. B. Krebs, Sec.; will erect plant on Bedford Ave. to manufacture rat trap.

Va., Norfolk—American Distributing Co., Inc., capital \$10,000, was incorporated with S. Salsbury, Pres.; A. Brenner, Sec.; will manufacture chemicals.

Va., Petersburg—Shirts—Stuart-Keith Co., main office Fayette & Greene Sts., Baltimore, Md., let contract to Harrison Construction Co., Petersburg, to construct plant on Pine St., near Brown; brick construction; 3 stories; 50x150 ft.; cost approximately \$45,000; C. E. Farley, local manager.

Motor Cars, Garages, Tires, Etc.

Ala., Albany—Filling Stations—Twin City Oil Co., capital \$15,000, was incorporated by B. E. Holman, R. E. Smith, R. L. Crawford; will erect filling stations.

Ala., Birmingham—Scholder Tire & Accessories Co., Nathan Scholder, Pres., increased capital from \$5100 to \$12,000.

Ala., Gadsden—Meeks Motor Co., W. C. Meeks, owner, will erect 40x125-ft. fireproof garage building, costing \$10,000; bids opened; C. B. Smith, Archt., Gadsden. (Supersedes recent item.)

Ala., Montgomery—Garage, etc.—Alemite Lubricator Co. of Alabama, 2330 Ave. G, Birmingham, Ala., A. Y. Aydelott, Pres. and Mgr., will erect \$15,000 ordinary construction building; bids open; Frederick Ausfeld, Archt., Montgomery. (Lately noted. (See Machinery Wanted—Compressors (Air); Boilers.)

Ark., Hot Springs—Sidney M. Nutt, Prop., of Central Garage, will erect 1-story, 140x142-ft. garage building on Lower Central Ave., concrete and steel construction, fireproof; Sidney M. Frink, Archt., Hot Springs.

Fla., Buena Vista, P. O. Miami—D. L. Shackelford Motor Co., let contract to The

Watson Corp., Miami, to erect 3-story garage building on Dixie Highway and 38th Sts., costing \$120,000; structural steel and concrete; first floor will contain offices, show room, service station and emergency repair room, etc.; second and third floors used for shops, assembling, washing, cleaning and storage; install heavy service elevator.

Fla., Miami—Garage—Charles S. Craig, 842 N. E. 2nd Ave., will erect public garage, of fireproof construction.

Fla., Orlando—Orlando Oakland Co., capital \$25,000, was incorporated with C. E. Moore, Pres.; N. P. Barnes, Sec.-Treas.

Ky., Manchester—Manchester Motor Co., capital \$10,000, was incorporated by R. B. and B. S. Reid and others.

Mo., St. Louis—Victor Motors, Inc., Capital \$74,000, incorporated by Guy Wilson, H. J. Bube, J. B. Kreiger.

N. C., Peachland—Garage—Joe B. Redfern will erect garage building.

S. C., Charleston—Sotille-Chevrolet Co., capital \$15,000, was incorporated with Santo Sotille, Pres.; Albert Sotille, Sec.

S. C., Greenville—W. M. Thompson Motor Co., will occupy 3-story, 60x116-ft. fireproof building at Washington and Spring Sts., to be erected by C. O. Allen; estimated cost \$150,000; J. E. Sirrine & Co., Archts., Greenville.

S. C., Greenville—Automobile—L. A. Mills will erect a 1-story automobile sales room, purchased site on College St.; Martin & Ward, Archts., Greenville.

S. C., Lake City—Automobile Accessories—Gaddy Service Station, incorporated by C. F. and Elizabeth Gaddy.

Tex., Alto—Alto Motor Co., capital \$10,000, was incorporated by M. C. Parrish, W. Y. Forest, Carlton Odom.

Tex., Dallas—Tires, etc.—Sprague Tire & Rubber Co., capital \$10,000, was incorporated by E. H. Sprague, P. V. and Ponder Greer.

Tex., McGregor—Carlisle Motor Co., capital \$20,000, was incorporated by Y. C. and M. H. Carlisle and others.

Va., Richmond—Robe Motor Corp., capital \$500,000, was incorporated with J. D. Stone, Pres.; W. C. Hess, Sec.

W. Va., Charleston—Garage—F. M. Staunton, 1215 Kanawha St., will erect \$8000 private garage.

W. Va., Charleston—Blumberg & Co., capital \$25,000, was incorporated by D. M. Blumberg, Joseph Levinthal, both Charleston; Harry Blumberg, Philadelphia, Pa.

W. Va., Huntington—Filling Station—Ohio Valley Refining Co. let contract to J. J. West, of Huntington, at \$10,000 to erect gasoline, kerosene and oil storage station at 31st St. and Baltimore and Ohio tracks.

W. Va., South Charleston—Mound Service Co., capital \$10,000, was incorporated by A. L. Perry, Charleston, C. J. Schmidt and G. M. Eckley, both South Charleston.

Road and Street Construction.

Alabama—State Highway Dept., W. S. Keller, Engr., Montgomery, Ala., will receive bids until June 19 to build 3 sections of roads as follows:

Marengo County, 23.655 mi. road and bridges between Demopolis and Miller; St. Clair County, Sec. A, 16.286 mi. and Sec. B, 15.717 mi., between Birmingham and Gadsden; also 5 concrete bridges; plans, etc., on file and from Div. Engr. at Selma, Ala., for Marengo County, and at Birmingham, Ala., for St. Clair County. (Lately noted.)

Ala., Birmingham—Details under Land Developments.

Ala., Birmingham—City Comm. plans expending \$104,000 for paving and sewer construction as follows:

Pave 5th Ave. from 36th to 45th; 40th from 5th Ave. to end of present paving; 2-in. asphaltic concrete on 5-in. concrete base; improve 7th St. and 4th Ave., and 10th Ave. and 52nd Place; install sanitary sewer at Ensley, and at S. 69th St.

Ala., Cloverdale—W. A. Graves, Mayor, plans paving with sheet asphalt, on 5-in. Portland cement concrete base, following streets:

Felder Ave. from Norman Bridge to eastern boundary of Cloverdale; 2nd, from Felder to Park Aves.; Park Ave., from 2nd to Felder; Galena Ave., from Cloverdale road to Felder Ave.

Ala., Dothan—City voted \$228,500 bonds for improvements, including \$48,000 for sidewalks, \$125,000 for street paving, and \$55,000 for storm sewers. Address The Mayor. (Lately noted.)

Ala., Hamilton—Marion County Commrs. will receive bids to hard surface 3 mi. Bexar link of Bankhead Highway.

Ala., Huntsville—Madison County contemplates improving 17 mi. Meridianville Pike from Huntsville to Tennessee line. Address County Commrs.

Ala., Selma—City, W. O. Crisman, Engr., will receive bids until June 30 to pave Church St.; 15,500 sq. yds. asphalt, asphaltic concrete and brick; plans, etc., on file.

Ala., Selma—City will receive bids soon to pave Church St., also to relay pavements on Franklin and Washington from Water to Alabama, and Alabama from Green to Washington. Address The Mayor.

Ala., Tusculum—Independent Paving Co., Birmingham, Ala., was awarded contract at \$22,500 to pave 12 blocks on 6th St.; macadam base, with bitulithic top. Address The Mayor.

Ark., Blytheville—Mississippi County Commrs., plan building concrete road on Blytheville-Manilla-Leachville highway, connecting at Craighead County line with roads running north, south and west; contemplates \$400,000 bond issue.

Ark., Fayetteville—City let contract to Moreno-Burkham Construction Co., Syndicate Trust Bldg., St. Louis, Mo., at \$44,750 to pave College Ave. Address The Mayor.

D. C., Washington—District Commrs., will receive bids until June 11 to lay 35,000 sq. yds. cement sidewalks; plans, etc., on file.

Fla., Apalachicola—Franklin County Commrs. plan building 13 mi. hard surface road from Apalachicola to Calhoun County line; contemplate election on \$100,000 bonds.

Fla., Jacksonville—City will widen from 30 to 45 ft., and repave Laura St. from Church to 1st; 6-in. concrete base, brick gutters, concrete curbs and sheet asphalt on binder; W. E. Shedd, City Engr.

Fla., Lake Wales—Details under Land Developments.

Fla., Leesburg—Details under Land Developments.

Fla., Miami—City Comm. let contract to John J. Quinn, to lay curbs and gutters on Bricknell Ave., and to John W. Rollins, Inc., to pave alley between S. Miami and Bricknell Aves.

Fla., Miami Beach—Wm. Whitman let contract to Biscayne Engineering Co., to extend Espanola Way, 4 blocks through Whitman tract; will pave, lay sidewalks, and extend white way.

Fla., Milton—City plans paving several streets from Elmira to L. & N. depot, includ-

ing Oak, Canal, Henry and Berryhill; C. H. Overman, Engr.

Fla., Pahokee—Town plans building 8 mi. hard surface road along beach, from Bacom's Point on south to Canal Point on north; contemplates voting on \$70,000 bonds; also contemplates building 9 mi. link from Bacom's Point to Belle Glade. Address The Mayor.

Fla., Pensacola—Escambia County Commrs. contemplate paving 2 sections of roads as follows: 1 mi. Flomaton-Pensacola road at Canoe Creek, and ½ mi. road east from end of Bayou Texar Bridge.

Fla., St. Petersburg—Details under Land Developments.

Ga., Atlanta—J. N. Landers, City Pur. Agt., receives bids until June 4 to pave following streets:

Pulliam from Central Ave. to Richardson, and Richardson to Ridge Ave., sheet asphalt, Willite process; Augusta Ave. from Grant to Hill, concrete; Delmar, from South Blvd., to Confederate Ave., sheet asphalt, Willite process; Summit Ave. from Currier to Forest, concrete; White from Ashby to Peeples, sheet asphalt, Willite process; East Ontario from Gordon to Stokes, Willite process; Hopkins from Lucille to Greenwich, sheet asphalt; Rodgers from Cascade to Manson, concrete; 17th from The Prado to Inman Circle, sheet asphalt, Willite process; 12th from Crescent to W. Peachtree, concrete; Greenwood from Ponce de Leon Place to Southern R. R., concrete; Lake from Euclid to Elizabeth, sheet asphalt, Willite process; Gibson from East Fair to Flat Shoals, concrete; Arlington Place from Briarcliff Place to Rosedale Drive, concrete; plans, etc., on file.

Ga., Lagrange—State Highway Comn., Atlanta, Ga., receives bids until June 6 to pave about 4 mi. Lagrange-West Point road, from end of paving on Vernon road to West Point Highway.

Ga., Thomasville—H. J. McIntyre, Mayor, will receive bids until June 25 to lay 13,891 sq. yds. street paving, 17,304 lin. ft. concrete curb and gutter, 1364 lin. ft. granite curb, and 10,919 sq. yds. sidewalks; also to construct 1775 lin. ft. 18 and 24-in. storm sewers, and 28 catch basins, complete; plans, etc., on file, and from C. Q. Wright, Engr., Albany, Ga.

Kentucky—State Highway Comn., Joe S. Boggs, Engr., Frankfort, Ky., will receive bids until June 20 to improve 3 roads as follows:

Jessamine County, 4.995 mi. Lexington-Harrodsburg road from Nicholasville road to Brooklyn Bridge, construct drainage structures and surface with waterbound macadam, waterbound macadam on napped limestone, or waterbound macadam surface treated; State Proj. No. 47, Sec. A, and F. A. Proj. No. 89; Pike County, 6.083 mi. Mayo Trail road, from Pikesville to mouth of Shelby Creek, State Proj. No. 6, Sec. C.; Powell County, 7.767 mi. Stanton-Campton road, from Stanton to F. A. Proj., No. 73, State Proj., No. 4, Sec. C, and F. A. Proj., No. 87, Sec. B.

Kentucky—State Highway Comn., Joe S. Boggs, Engr., Frankfort, Ky., received low bids to improve 9 roads as follows:

Christian County, 9.360 mi. Hopkinsville-Gracey road, from west corporate limits of Hopkinsville to Gracey; S. A. Proj., No. 1, Sec. C, and F. A. Proj., No. 93, McQuarry Bros., Princeton, Ky., at \$192,684.04, for bank gravel, and Breslin & Durrett, Louisville, Ky., at \$12,122.42, for oil surface treatment; Clinton County, 4.248 mi. Albany-Monticello road, from Sartwright to

Wayne County line, S. A. Proj., No. 27, Sec. A, Moynahan & Turner, Lexington, Ky., at \$58,653.68, for waterbound macadam; Hopkins County, 13.1 mi. Dawson Springs-Earlinton road from northeast corporate limits of Dawson Springs, to southwest corporate limits of Earlinton, State Proj., No. 55, Sec. A, and F. A. Proj., No. 97, N. E. Stone & Co., Madisonville, Ky., at \$255,094.71 for bank gravel, and Southern Oil & Tar Co., Louisville, Ky., at \$18,675.20 for oil surface treatment.

Henry, Trimble and Carroll Counties, 12.140 mi. New Castle-Carrollton road, from Campbellsburg to Prestonville, State Proj., No. 45, Sec. A, Clark County Construction Co., Winchester, Ky., at \$292,735.79, for waterbound macadam, and R. B. Tyler Co., Louisville, Ky., at \$14,921.20 for oil surface treatment; Kenton and Boone Counties, 9.352 mi. Lexington-Covington road, from Grant County line to south corporate limits of Walton, and from Walton to ½ mi. north of Richwood, State Proj., No. 5, Sec. A and B, and F. A. Proj., Nos. 96 and 100, John Wroe, Dayton, Ohio, at \$316,788.76, for reinforced concrete.

Mason County, reconstruct 7 mi. Lexington-Maysville road, from city limits of Maysville to North Fork of Licking River, State Proj., No. 20, Sec. L, Bates & Paynter, Danville, Ky., at \$47,511.10; Pike County, 6.811 mi. Pikeville-Williamson road, from end of bridge across Tug Fork at Leckieville, to D. A. Proj., No. 52, near Sharondale, State Proj., No. 36, Sec. C, and F. A. Proj., No. 101, N. K. Sneed Co., Huntington, W. Va., at \$123,092.62; Union County, 16 mi. Louisville-Paducah road, from city limits of Morganfield to Crittenden County line, State Proj., No. 8, Sec. B, and F. A. Proj., No. 94, W. W. Carter, Clay, Ky., at \$123,454.70. (Lately noted.)

Ky., Whitesburg—City Clk. will let contracts in about 2 weeks to pave Main St., Webb and Railroad Aves.

Louisiana—Louisiana Highway Comn., J. M. Fourmy, Engr., Raymond Bldg., Baton Rouge, La., received low bids to grade, construct drainage structures, and gravel surface 3 sections of roads as follows:

Vermilion Parish, 9.36 mi. Abbeville-New Iberia Highway, from Abbeville to Delcambre, Proj. 328, Burke & Jones, New Iberia, La., at \$41,724.91; Red River Parish, 10.36 mi. Coushatta-Shreveport Highway, between Coushatta and Crichton, Proj. 314, Secs. A and B, W. B. Butler, Coushatta, La., at \$71,792.37. (Lately noted.)

La., Abbeville—Louisiana Highway Comn., J. M. Fourmy, Engr., Raymond Bldg., Baton Rouge, La., will receive bids until June 19 to grade, drain, construct culverts and bridges, and gravel surface 2 sections of Abbeville-Jennings Highway, as follows: Sec. A, 9.23 mi. from Abbeville to Kaplan; Sec. B, from Kaplan to end of gravel road, ½ mi. west of Mulvey; Vermillion Parish, State Proj. 329; plans, etc. on file.

La., Bastrop—Morehouse Parish Police Jury plans expending \$1,100,000 to build 150 mi. roads in Parish.

La., Jennings—Lafayette Construction Co., was awarded contract at \$26,686, to gravel various streets; 23,000 cu. yds. washed gravel; 5200 ft. iron culverts. Address The Mayor.

La., Minden—Louisiana Highway Comn., J. M. Fourmy, Engr., Raymond Bldg., Baton Rouge, La., will receive bids until June 19 to gravel surface Sec. A, of Minden-Shreveport Highway, Webster Parish, F. A. Proj. 116; plans, etc. on file.

La., Shreveport—City let contract to E. J. Deas Co., to pave Allen Ave. from Anna to

Able Sts.; Thornhill, from Prospect to Robinson Place; Stephenson from Highland to Gilbert; to Flenniken Construction Co., to pave Creswell, from Vine to Wall.

Maryland—State Roads Comn., John N. Mackall, Chmn., 601 Garrett Bldg., Baltimore, Md., received low bids to improve 6 sections of roads as follows:

Washington County, re-surface 11 mi. road between Hagerstown and Sharpsburg, Gossnell, Russell & Co., Frederick, Md., at \$189,665; Baltimore County, 3 mi. concrete shoulders along Seminary Ave., between Falls and York roads, A. C. Knight, 1916 Maryland Ave., Baltimore, at \$30,175; Montgomery County, 2 mi. concrete shoulders, on Brookville Pike, between District line and Woodside, Corson & Gruman, Washington, D. C., at \$22,507; Garrett County, .67 mi. along Oak and 3rd Sts., Oakland, F. A. Dennison & Co., Washington, D. C., at \$26,147; Montgomery County, 1 mi. between Darnestown and Seneca, M. J. Grove Lime Co., Frederick, Md., at \$30,160; Worcester County, 1.5 mi. from Snow Hill toward Salisbury, Hannon-Burroughs Co., Salisbury, Md., at \$35,665. (Lately noted.)

Maryland—State Roads Comn., John N. Mackall, Chmn., 601 Garrett Bldg., Baltimore, Md., will receive bids until June 19 to build 5 roads as follows:

Frederick County, 1 mi. from Myersville to Ellerton, macadam re-surfacing, Cont. F-60; Carroll County, 1 mi. concrete from Gamber toward Pinksburg, Cont. Cl-40; Anne Arundel County, 2 mi. gravel along Mayo road, Cont. AA-34; Charles County, 2 mi. gravel between Marbury and Doncaster, Cont. Ch-27; Queen Annes County, 2 mi. concrete from Millington toward Sudlersville, Cont. Q-26.

Md., Baltimore—Dept. of Public Improvements, approved plans to widen Belvedere Ave. to 100-ft. from Reilstertown road to point 500 ft. east of Park Heights Ave.

Md., Baltimore—Board of Awards, Mayor Howard W. Jackson, Pres., City Hall will receive bids until June 13 to grade, curb and pave with sheet asphalt, cement concrete, and granite block relaid on concrete base, streets in Cont. No. 237-OCOANA, 2070 sq. yds. cement concrete, 750 sq. yds. old granite block relaid; in Cont. 238-OANA, 10,810 sq. yds. cement concrete; and in Cont. 239-OANA, 13,214 sq. yds. sheet asphalt, 940 sq. yds. granite block, redressed as liners; plans, etc., from Paving Comn., R. Keith Compton, Chmn., 214 E. Lexington St.; A. E. Christhill, Ch. Engr., City Hall.

Miss., Wiggins—State Highway Comn., Jackson, Miss., let contract to James Lee, Wortham, Miss., at \$40,000, to gravel surface Jackson Highway through Stone County.

Missouri—State Highway Dept., B. H. Piepmeyer, Ch. Engr., Jefferson City, Mo., let contract to build 14 roads as follows:

Andrew County, 5 mi. from Savannah to Oregon, State Proj. Route 1, Sec. 23, to Fred M. Clark, Savannah, Mo., at \$18,935.45; Carroll County, 2 sections, .540 mi. from Carrollton to Waverly, State Proj. Route 3, Sec. 33, to Cameron Joyce & Co., Keokuk, Iowa, at \$21,039.60; .540 mi. from Carrollton to Waverly, State Proj. Route 3, Sec. 34, to C. J. Pemberton, Wakenda, Mo., at \$8564.06; Clay County, 3.296 mi. from Kansas City to Excelsior Springs, State Proj. Route 1, Sec. 40, to J. C. Lyle, Kansas City, at \$14,007.69; Franklin County, 2.786 mi. from Union to Rosebud, State Proj. Route 12, Sec. 53, to Vedder & Kasmann, Union, Mo., at \$32,279.23;

Hickory County, 2 sections, 5 mi. from Preston to Wheatland, State Route 64, Sec. 11, to Vincennes Bridge Co., Vincennes,

Ind., at \$16,112.11, and 1.618 mi. from Preston to Wheatland, State Proj. Route 64, Sec. 11, to Pioneer Construction Co., Kansas City, Mo., at \$53,770.20; Platte County, 4.625 mi. from St. Joseph to Kansas City, State Proj. Route 1, Sec. 39, to Land Construction Co., St. Joseph, Mo., at \$30,037.97; Randolph County, from Moberly to Macon, State Proj. Route 7, Sec. 27, to P. J. Murphy, Moberly, at \$14,099.81;

Ripley County, 5 mi. from Doniphan to Poplar Bluff, State Proj. No. 206, to Missouri Bridge & Iron Co., St. Louis, at \$17,297.75; Saline County, 2 sections, 4.897 mi. from Marshall to Glasgow, State Proj. Route 20, Sec. 31, to H. H. Havenkratt, Kansas City, at \$31,264.10, and 4.059 mi. from Marshall to Glasgow, State Proj. Route 20, Sec. 32, to A. W. Mosley, 529 Kansas City Ave., Excelsior Springs, Mo., at \$18,901.90; Ste. Genevieve Co., 5 mi. from Ste. Genevieve, north and south, State Proj. Route 25, Sec. 4, to Harold A. Worman, Pittsfield, Ill., at \$28,304.52; Texas County, 5 mi. from Cabool to Houston, State Proj. Route 7, Sec. 84, to Missouri Bridge & Iron Co., at \$27,095.98. (Lately noted.)

Missouri—State Highway Dept., B. H. Piepmeyer, Ch. Engr., Jefferson City, Mo., plans grading, constructing drainage structures, etc., on 20 roads as follows:

Atchison County, 5 mi. from Rockport to Tarkio, State Proj. Route 1; Barton County, 5 mi. from Lamar, south, State Proj. Route 1; Cass County, 5 mi. from South End Belt to Harrisonville, State Proj. Route 20; DeKalb County, 5 mi. from Clarksdale to King City, State Proj. Route 31; Dent County, 5 mi. from Salem, south, State Proj. Route 19; Douglas County, 5 mi. from Ava to Gainesville, State Proj. Route 23, Sec. 32; Gasconade County, 5 mi. from Mount Sterling to Rose Bud, State Proj. Route 12; Iron County, 5 mi. from Ironton to Salem, State Proj. Route 21.

Lafayette County, 5 mi. from Waverly to Missouri River, State Proj. Route 3; Mercer County, 5 mi. from Princeton, south, State Proj. Route 3, Sec. 8; Monroe County, 5 mi. from Paris north, State Proj. Route 15; Newton County, 5 mi. from Neosho, east, State Project Route 16; Osage County, 5 mi. from Mt. Sterling to Jefferson City, State Proj. Route 12; Perry County, 5 mi. from Perryville, south, State Proj. Route 25; Pettis County, 5 mi. from Dresden, west, State Proj. Route 12; St. Francis County, 5 mi. from Blismark, east, State Proj. Route 68; Shelby County, 5 mi. from Shelbina to Shelbyville, State Proj. Route 15; Stone County, 2 sections; 5 mi. from Crane south, State Proj. Route 43; 5 mi. from Galena, north, State Proj. Route 43; Worth County, 5 mi. from Grant City, north, State Proj. Route 29.

Mo., Butler—City plans paving with concrete, Pine and Delaware Sts. Address The Mayor.

Mo., Columbia—John S. Bicknell, City Clk., let contract to Johnson Brothers, Warrensburg, Mo., to pave S. 5th St., and Park Ave., and to widen S. 9th St.; to Clyde Stewart to pave Short St. (Lately noted.)

Mo., Independence—City contemplates widening and improving Van Horn St. Address The Mayor.

Mo., Kirksville—City plans paving with brick one block on Marion and Missouri Sts., and re-surfacing Jefferson St., from Florence to Hallburton. Address City Engr. Crabtree.

Mo., Kirksville—City let contract to S. L. Eggert to pave with brick Main and Illinois Sts. Address The Mayor.

Mo., St. Charles—St. Charles County Court let contract to Bangert Brothers Construction Co., Ferguson, Mo., at \$119,376, to improve 4 mi. Boone's Lick road, from Harvester to Cottleville; 3 mi. tarvia, and 1 mi. gravel. (Lately noted.)

Mo., St. Joseph—Board of Public Works will receive bids to pave 18th St. from Grand to Lover's Lane.

Mo., St. Joseph—Board of Public Works let contract to Land Construction Co., St. Joseph, at \$32,863.40 to pave, with wire cut brick blocks, Jule St. from 13th to 22nd Sts.

Mo., St. Louis—Details under Land Developments.

Mo., Sedalia—City Clk. receives bids until June 4 to lay 1600 sq. yds. 6-in. concrete pavement; approximate cost \$3600; F. T. Leaming, Engr. (Lately noted.)

Mo., Springfield—J. P. Ramsey, Commr. of Streets and Public Improvements, let contract to V. E. Koch Construction Co., Joplin, Mo., to pave Loren St. from Holland Ave. to west city limits, and to pave and curb Chestnut St. from Grant to Weaver; to A. T. Tracey to lay curb on Court St. from Boonville to Roberson Aves.; will receive bids to pave State St. from Jefferson to South, and Frisco from Davidson to Lynn; also plans laying curb on Sherwood Ave. from Calhoun to Webster.

N. C., Henderson—City, A. A. Bunn, Mayor, plans additional street improvement; will issue \$200,000 bonds.

N. C., High Point—For full details see Land Developments.

N. C., Norwood—Town, S. J. Lentz, Mayor, will receive bids until June 12 to lay 11,000 sq. yds. pavement, 10,000 sq. yds. sidewalks, and 11,000 lin. ft. combined curb and gutter; also install 3250 lin. ft. water mains, with necessary valves, hydrants, etc., and 3250 lin. ft. sanitary sewers, manholes, etc.; plans, etc. on file, or from Harwood Beebe, Engr., Spartanburg, S. C.

N. C., Spencer—R. J. Goode, Mayor, let contract to R. G. Lassiter Construction Co., Raleigh, N. C., at \$2.80 sq. yd. to lay about 38,000 sq. yds. streets, 5-in. concrete base, and regular bitulithic finish; at \$2.50 yd. for 25,000 lin. ft. curb and gutter, and at 50 cts. for grading; also to construct 1 mi. sewer, and extend water line; estimated cost \$200,000. (Lately noted.)

Okla., Muskogee—Muskogee County Commrs., plans building 3 roads, totaling 24 mi., as follows:

12 mi. from Warner to Webbers Falls, connecting with free bridge over Arkansas River, state and federal aid project; 6 mi. from Jefferson Highway to Wainwright; 6 mi. between Boynton and Council Hill.

Okla., Tulsa—City Commrs. will receive bids soon to pave streets and install sewers in Terwilliger Heights; also plan paving Pine St. from Cheyenne to Denver; Admiral, from Quannah to Rosedale; Olympia from 17th to 25th; 17th from Utica to Victor and from Phoenix to Nogales; Rosedale, from Admiral to 1st; Cheyenne from Pine to Elmwood Addition; 14th, from Trenton to Utica.

S. C., Orangeburg—Orangeburg County Highway Comsn., will receive bids until June 15 to install drainage structures and surface 8.466 mi. State Route No. 27, from Dorchester County line, near Dorange, to point near Edisto River, through Branchville; 20,831 cu. yds. sand clay surfacing; F. A. Proj. No. 168; plans, etc., from W. C. Cathey, Div. Engr., Seville Bldg., Orangeburg, and from State Highway Engr., Columbia, S. C. (Lately noted.)

S. C., McCormick—McCormick County con-

templates top soiling 20 mi. road from McCormick to Dixie Highway, near Dr. Self's place, between Greenwood and Edgefield, via Dornville; cost \$25,000, half to be paid by County, and half from federal aid. Address County Commrs.

S. C., Spartanburg—Spartanburg County Highway Comn. received low bid from Southern Paving Construction Co., Chattanooga, Tenn., to pave 1.818 mi. S. H. No. 10, from Spartanburg through Arkwright, at \$66,478.35, for sheet asphalt, and at \$62,962.75 for asphaltic concrete; received low bid from Blackwelder & Baugh, La Grange, Ga., at \$16,755.70 to build reinforced concrete bridge over Fairforest Creek, and improve concrete arch over branch. (Lately noted.)

Tennessee—State Dept. of Highways and Public Works, J. G. Creveling, Commr., Nashville, Tenn., will receive bids until June 22 to grade, construct drainage structures, etc., on 8 roads as follows:

Madison County, 14.7 mi. cement concrete pavement, between Jackson and Haywood County line, F. A. Proj., No. 69; Montgomery County, 2 sections; 2.04 mi. Telford base and bituminous macadam surface, between Clarksville and new Cumberland River Bridge, F. A. Proj., No. 91, and F. A. Proj., No. 16, Sec. D, near new Cumberland River Bridge; Coffee County, 5.1 mi. bituminous macadam surface, between Moore County line and Tullahoma, S. A. Proj., No. 101; Grundy County, 21.2 mi. between Monteagle and Altamont, S. A. Proj., No. 114; Overton County, 2 sections; 13.24 mi. bituminous surface treatment, between Livingston and Pickett County line, S. A. Proj., No. 117, and 12.06 mi. Telford base, and bituminous macadam surface, between Livingston and Putnam County line, S. A. Proj., No. 118; Robertson County, 10.7 mi. reconstructed base course, with 100,000 sq. yds. bituminous macadam surface, between Davidson County line, near Ridgetop and point south of Springfield; plans, etc., on file. (Lately noted.)

Tenn., Elizabethton—City Mgr. will receive bids until June 8 to lay 32,000 sq. yds. street paving; rock asphalt, brick, wood block, concrete, etc.; 19,000 lin. ft. curb and gutter; and install sewers, manholes, inlets and storm water drains; plans, etc., on file, and from O. K. Morgan, Engr., Elizabethton and Johnson City.

Tenn., Jacksboro—Campbell County Highway Comsn., Jesse L. Rogers, Chmn., LaFollette, Tenn., let contract to J. F. Marcum, Fountain City, Knoxville, Tenn., at \$150,000 to grade and lay penetration macadam on 8 mi. road from Red Ash to Pioneer. (Lately noted.)

Tex., Bonham—Fannin County, E. A. McMahan, County Auditor, will invite bids soon to gravel surface road from Grayson County line, through Trenton, to Leonard Pike on east.

Tex., Brenham—Washington County, J. H. Chappell, County Judge, will receive bids until June 15 to grade and construct drainage structures on 2 roads as follows:

19.2 mi. Brenham-Washington road; 3000 cu. yds. concrete; 208,000 lbs. reinforced steel; 17.3 mi. S. H. No. 36, through County; 122,100 cu. yds. roadway; 2189 cu. yds. concrete; 196,290 lbs. reinforced steel; G. A. Bracher, County Engr.

Tex., Carthage—Panola County, Precinct No. 4, Road Dist. No. 6, plans highway improvement; will vote June 16 on \$10,000 bonds.

Tex., Carthage—Panola County, A. D. Nelson, County Judge, plans building highway in Road Dist. No. 3 between Carthage and

Rusk County line; \$63,000 bond issue available.

Tex., Cleburne—Johnson County Comms. Court, O. B. McPherson, County Judge, let contract to G. A. McClung Construction Co., Cleburne, at \$248,000, to gravel and construct bridges on primary road in County.

Tex., Corsicana—Navarro County Comms., will consider petition June 11 for calling election on \$4,750,000 bonds to build roads.

Tex., El Paso—R. M. Dudley, Mayor, receives bids until June 7 to pave Oxford St. with Warrenite bitulithic, from Stevens to Madison Sts.

Tex., El Paso—S. H. Veater, was awarded contract at \$10,831.50 for 24,900 cu. yds. grading on Copia St. from Morencio to Aurora. Address The Mayor.

Tex., Fort Worth—City Comsn. plans paving Jerome St. from Rosedale to Park Place, and Magnolia Ave. from Evans Ave. to Santa Fe Crossing; will receive bids soon to pave East Rosedale, from S. Main to Evans, and Bessie St. from Vickery Blvd. to Cromwell St.

Tex., Fort Worth—Tarrant County, W. E. Yancy, County Auditor, receives bids until June 7 to grade, construct drainage structures, and gravel surface 3.54 mi. from Sta. 0 plus 00 on Dallas Pike to Sta. 186 plus 77 on Randol Mill road; Proj. No. 41; plans, etc., from County Engr.

Tex., Georgetown—Williamson County, H. A. Hodges, County Auditor, received low bid from W. E. Dozier, 230 Austin National Bank Bldg., Austin, Tex., at \$91,495.58, to surface 16.1 mi. S. H. No. 2-C; 1-in. rock asphalt. (Lately noted.)

Tex., Gonzales—Gonzales County, J. C. Romberg, County Judge, will receive bids until June 12 to grade, construct drainage structures and gravel surface 3.66 mi. on Sec. B, S. H. No. 29; plans, etc. from State Highway Dept., Austin, Tex., and J. G. Irby, County Engr., Gonzales.

Tex., Houston—Harris County, Chester H. Bryan, County Judge, let contract to Haden & Austin, Houston, to surface with inverted penetration bituminous topping, 2 roads as follows:

3 mi. Crosby road, and 5 mi. Washington County road. (Lately noted.)

Tex., Kountze—Hardin County, C. F. Teel, County Judge, let contract to Bremer & Wilder, Houston, Tex., at \$85,710.22, to build 15.66 mi. shell road on S. H. No. 40; gravel surfacing; F. A. Proj. No. 355-A. (Lately noted.)

Tex., Liberty—Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans to grade and construct bridge on 34.54 mi. S. H. No. 3, Liberty County, F. A. Proj., No. 352; estimated cost \$459,156, federal aid \$100,000; C. R. Wilson, County Judge.

Tex., Marshall—City let contract to Cocke & Turner, Marshall, at \$41,228.75, for 8430 sq. yds. 3-in. vertical fibre brick pavement on 4-in. concrete base; Elrod Engineering Co., Conslt. Engrs., Dallas, Texas.

Tex., Marshall—Harrison County, John W. Scott, County Judge, plans building S. H. No. 8, north and south across County; State Highway Comn. appropriated \$13,000; Geo. A. McClellan, County Engr.

Tex., Orange—Orange County, E. S. McCarver, County Judge, will receive bids until June 11 for 5.24 mi. concrete road on S. H. No. 3; estimated cost \$280,000; J. E. Johnson, County Engr.

Tex., Palo Pinto—Palo Pinto County, E. L. Pitts, County Judge, let contracts to Smith

Brothers, American National Bank Bldg., Dallas, Tex., to build 2 roads as follows: Grade, construct drainage structures, and lay macadam base on 5.81 mi. S. H. No. 1, F. A. Proj. No. 356, at \$81,945.07, and at \$154,400 for 9.81 mi. S. H. No. 1, F. A. Proj. No. 369. (Lately noted.)

Tex., Pecos—Reeves County, J. F. Ross, County Judge, plans gravel surfacing 14 mi. 18-ft. road on Bankhead Highway, from Pecos County line west; F. A. Proj., No. 390; estimated cost \$101,740; S. S. Posey, Res. Engr.

Tex., Uvalde—Uvalde County, H. C. King, County Judge, let contract to Ruby & Co., Schertz, Tex., at \$20,182.16, to grade and gravel surface 5.22 mi. San Antonio-Del Rio Highway. (Lately noted.)

Va., Abingdon—Washington County, W. H. Ashton, County Supvr., let contract to Warden Construction Co., Pulaski, Va., at about \$100,000, to improve 8 roads in Glade Spring Dist., as follows:

1.33 mi. Cedarville-Meadow View road; 1.7 mi. between Abingdon Dist. line and Meadow View; 1.47 mi. between Meadow View and Emory; 1.2 mi. Scott road, between Emory and Saltville Dist. line; 1.8 mi. between State Road No. 10 and Price's Bridge; 1.21 mi. Tattle Creek road, between Dickerson's Store and Hutton's Bridge; 2.12 mi. Hogthief Creek, between State Road No. 10 and Middlefork of Holston road; 1.24 mi. Hogthief Creek, between State Road No. 10, and Norfolk & Western Ry. (Lately noted.)

Va., Charlotte Court House—Charlotte County Board of Supvrs., receives bids until June 4 to build 2 roads as follows:

Complete 5 mi. sand clay road from near Roanoke Baptist Church to Abilene, between Walton and Madison Dists.; lay concrete slab on .24 mi. Drakes Branch-Aspen road, over Roanoke Creek flats; plans, etc., from S. P. Daniel, Engr., Drakes Branch, Va.

Va., Clifton Forge—F. M. Reynolds, Chmn. of Street Comm., will receive bids until June 8 to pave and improve various streets; \$120,000 appropriated; plans, etc., from DeMott & Magruder, Engrs., Lynchburg, Va.

Va., Roanoke—City, B. J. Fishburn, Mayor, plans widening Franklin Road, 10 ft. between Jefferson and Commerce Sts.; estimated cost \$30,000, property owners to pay one third.

Va., Westpoint—Town will receive bids until June 11 to lay from 2000 to 7000 lin. ft. curb and gutter. Address The Mayor.

W. Va., Charleston—City plans paving 11 streets and 2 alleys, including Edgewood, Beech, Gardner Aves., Springdale, Summit and Edgewood Drives, Pine, Oney and Birch Sts., etc. Address The Mayor.

W. Va., Fayetteville—Fayette County Court, Thos. Boone, Clk., will receive bids until July 2 to grade, drain and pave 4 roads as follows:

10 mi. from Mt. Hope to Country Club, via Summerlee; 4 mi. from Oak Hill to Country Club, via Summerlee; 10 mi. from Fayetteville to Gatewood to Cunard; road from Country Club at Lochgelly to Wriston; 9-ft. concrete local stone shoulders; 9-ft. local stone base with limestone top and chips; 9-ft. local stone base, top and chips; 9-ft. local stone base and top, with limestone chips, and 9-ft. local stone base, 2-in. limestone binder, 1½-in. rock asphalt-local stone shoulders; plans, etc., from H. R. Anderson, Road Engr., Fayetteville.

W. Va., Huntington—For full details see Land Developments.

W. Va., Parkersburg—Wood County, Harris

Dist., plans improving 4 roads in district; will vote June 26 on \$88,000 bonds. Address County Comms. (Lately noted.)

W. Va., South Charleston—City let contract to Reed & Lapsley, South Charleston, at \$150,000 to pave following streets:

E. Quincey and C Sts., 2nd, 5th, 7th and 9th Aves., Montrose Drive, part of county road, etc. Address The Mayor.

Sewer Construction.

Ala., Birmingham—Details under Road and Street Construction.

Ala., Dothan—City voted \$55,000 bonds for storm sewers, will also construct sanitary sewer extensions in northwest and east sections of the city; cost \$75,000. Address The Mayor. (Lately noted.)

Fla., Ocala—City votes July 17 on \$25,000 sewerage extension bonds, \$75,000 for street improvements, etc. Address The Mayor. (Lately noted.)

Fla., St. Petersburg—Details under Land Developments.

Ga., Columbus—City, Walter A. Richards, Mgr., is considering construction of 150 ft. sewer over Cook's branch at Third Ave.

Ga., Thomasville—Details under Road and Street Construction.

Mo., Brookfield—City let contract to Crandall & Ryan to construct sewer in district No. 48.

Mo., Burlington Junction—Details under Water Works.

Mo., Maysville—Details under Water Works.

Mo., St. Louis—Board of Public Service approved plans for construction of River des Peres sewer and storm water channel, 13-mi. in length, cost approximately \$500,000; construction of section of sewer through Forest Park, cost \$500,000, and bridge over River des Peres at Gravois Ave., cost \$115,000. (Lately noted.)

Mo., Tipton—Details under Water Works.

N. C., Davidson—Details under Water Works.

N. C., Durham—J. W. Carr, Supt. County Schools, received bids until June 9 to construct approximately 2500 ft. of 8" and 10" sewer; R. M. Pickard, Eng.

N. C., High Point—Details under Land Development.

N. C., Norwood—Details under Road and Street Construction.

N. C., Spencer—Details under Road and Street Construction.

N. C., Walnut Cove—Details under Electric Light and Power Plants.

Okla., Tulsa—Details under Street Construction.

Tenn., Elizabethton—Details under Road and Street Construction.

Tex., Elgin—City granted E. L. Dalton, of Dallas, Texas, sewer franchise.

Tex., Fort Worth—City let contract to H. W. Greenway to construct storm sewers on East Rosedale, Rio Grande and Jennings Ave.

Va., Danville—City will vote June 19 on \$50,000 bonds for sewers and schools. Address The Mayor.

Va., Middletown—Details under Water Works.

W. Va., Huntington—Details under Land Developments.

W. Va., South Charleston—City let contract to Reed & Lapsley, South Charleston, to construct sanitary sewers. (Lately noted.)

Street Railways.

Va., Roanoke—Roanoke Street Railway & Electric Co., according to a press report quoting J. W. Hancock, Gen. Mgr., plans extensive improvements to facilitate service at a cost of more than \$85,000. Considerable track work is necessitated.

Telephone Systems.

Ala., Fairfield—Southern Bell Telephone & Telegraph Co., main office Atlanta, Ga. will construct underground conduits, costing several thousand dollars.

Fla., Sarasota—Peninsular Telephone Co., W. G. Brorein, Tampa, Fla., let contract to M. L. Reed, Sarasota to erect telephone building, costing \$25,000; Louis A. Frost, Archt., Tampa, Fla. (Lately noted.)

Mo., Carthage—Home Telephone Co., Lyon and 6th St. will remodel and enlarge office building; bids open.

W. Va., Charleston—Western Union Telegraph Co. will occupy 32x58½-ft. building, erected by Central Trust Co., R. O. Newcomb, Contr., 201 Kanawha Bank & Trust Bldg., Charleston, W. Va.

Textile Mills.

Ala., Anniston—Anniston Manufacturing Co., A. L. Tyler, Pres., will build second and third story to present mill, rearrange machinery, adding new carding machinery; J. E. Sirrine & Co., Engrs., Greenville, S. C.

Ala., Opelika—George H. Lanier of West Point, Ga. has purchased the Opelika Cotton Mills.

Ga., Hogansville—International Cotton Mills, Boston, Mass., let contract to A. J. Krebbs Co., of Atlanta, Ga., for construction of concrete skeleton of plant of stock mills; approximately 260,000 sq. ft. of floor space; Lockwood, Greene & Co., Engrs., Boston and Atlanta, Ga. (Lately noted.)

Ga., LaGrange—Dunson Mills, J. E. Dunson, Jr., Prest., let contract to Fiske-Carter Construction Co., Greenville, S. C. to construct four mill buildings doubling capacity of present plant; buildings will consist of 2 story weave shed 165x132 ft.; 2 story and basement addition to regular plant; 1 story slasher building, 292x92 ft. and 50 ft. warehouse; cost of buildings and equipment approximately \$1,000,000.

N. C., Asheville—Asheville Knitting Mills, Inc., Box 27, are erecting finishing room for dyeing, bleaching and finishing hosiery and underwear. (See Machinery Wanted—Textile Machinery.)

N. C., Elizabeth City—Hosiery—Standard Manufacturing Co., Dennis Van Horn, Pres. increased capital from \$20,000 to \$100,000 and will enlarge plant, install additional machinery, etc.

N. C., Gastonia—Trenton Cotton Mills increased capital from \$350,000 to \$500,000.

N. C., Roseboro—Roseboro Cotton Mill, capital \$400,000, was incorporated by T. I. Herling, A. J. Simmons and W. J. Buckler.

Water Works.

Ala., Birmingham—Details under Land Developments.

Ala., Ensley—For full details see Land Developments.

Ala., Huntsville—City will increase capacity of plant by installation of electrical unit capable of pumping 189,000 gals. per hour. Address The Mayor.

Fla., Lake Wales—For full details see Land Developments.

Fla., St. Petersburg—Details under Land Developments.

Fla., West Palm Beach—For full details see Miscellaneous Construction.

Md., Hagerstown—Mayor and Council authorized Board of Water Comms. J. McPherson Scott, Chrmn., to purchase site on Potomac River and build water works plant.

Mo., Burlington Junction—City votes June 19 on bonds for water and sewer system. Address The Mayor. (Lately noted defeating previous bond issue.)

Mo., Edina—City has plans by W. B. Rollins & Co., Engrs., Kansas City, Mo., for sewerage system and waterworks extensions; cost of sewer system including 3 septic tanks, \$69,000, cost of water main extensions \$15,000. (Lately noted.)

Mo., Maysville—City Council considering establishment of waterworks and sewer system.

Mo., Tipton—City has engaged J. P. Davis, Conslt. Engr., Jefferson City, Mo., to prepare plans and specifications to construct waterworks and sewerage system; will probably vote on bond issue.

N. C., Davidson—City, C. H. Hamilton, Mayor, let contract to Boyd, Higgins & Goforth of Charlotte, N. C. to construct water and sewerage system; contract for wells let to Virginia Machine & Well Co., Richmond, Va. (Lately noted.)

N. C., Henderson—Henderson Water Co., J. R. Teague, Sec., will increase capital from \$100,000 to \$300,000; will extend and improve plant.

N. C., High Point—For full details see Land Developments.

N. C., Norwood—Details under Road and Street Construction.

N. C., Spencer—Details under Road and Street Construction.

N. C., Walnut Cove—Details under Electric Light and Power Plants.

S. C., Heath Springs—City, E. C. Bridges, Mayor, lately noted voting \$35,000 bonds for water works and electric light system, will expend \$25,000 for erection of water works plant; Ryan Engineering Co., Engrs., Columbia, S. C. (See Machinery Wanted—Pipe (Water), etc.)

Tex., Fort Worth—City, E. R. Cockrell, Mayor, opens bids June 12 to furnish materials, equipment and labor for constructing pump house building and pump, pumping machinery and elevated tank; John B. Hawley, Conslt Engr., 403 Cotton Exchange Bldg., Fort Worth.

Tex., Fort Worth—City let contract to H. W. Greenway, to construct extension to water system, lately noted; will also install 12,000,000 gal. water pump, increasing capacity of Holly plant from 16,000,000 to 28,000,000 gals. daily; cost of pump and other machinery \$80,000.

Tex., Frisco—City contemplates voting on bonds to install water and electric light plant. Address The Mayor.

Tex., Sinton—City votes June 19 on \$45,000 bonds for installation of water works. Address The Mayor.

Va., Middletown—City votes in June on bonds for water and sewer system. Address The Mayor.

W. Va., Huntington—Details under Land Developments.

Woodworking Plants.

Miss., Moss Point—Gulf Woodenware Co. has leased new site, will install additional machinery and improve plant for the manufacture of paper roll plugs and other wooden articles.

Missouri—T. J. Moss Tie Co., 722 Security Bldg., St. Louis, Mo., have acquired 103,000 acres of timber land in Carter, Shannon and Oregon Counties, will manufacture cross ties and tie siding by hewing and also by portable tie mills run by gasoline tractors; will probably retain ownership of land for reforestation purposes. (Lately noted.)

Mo., Kansas City—Western Blind & Screen Co., capital \$20,000, was incorporated by Albert Dodge, R. S. Gilman, W. S. Holland.

Mo., St. Louis—Ideal Cabinet Co., capital \$12,500, was incorporated by Morris Lasky, Lewis Nachman and others; will manufacture cabinets, phonographs, etc.

Mo., Springfield—Hawkeye Casket Co., capital \$25,000, was incorporated with W. H. Meuser, Pres.; J. T. Burke, Sec.

N. C., Statesville—Sherrill Green Furniture Co., Inc. (lately noted incorporated with \$100,000 capital) organized with C. E. Kiger, Pres., Statesville; T. L. Green, Mgr., Lenoir, N. C.; will erect plant addition and install about \$5000 of woodworking machinery; manufacture dining room furniture. (See Machinery Wanted—Woodworking Machinery.)

N. C., Wilmington—Wilmington Wood Products Co. let contract to Walter Clark, Wilmington, to erect plant, including mill, boiler and power house, heading and stave kilns, other additions to be made as needed; L. L. Merritt, Engr., Wilmington. (Lately noted incorporated with \$105,000 capital.)

Tenn., Memphis—King-Haase Furniture Co. increased capital to \$175,000.

Va., Lynchburg—Boxes, etc.—Lynchburg Lumber Manufacturing Co., R. H. Angell, Pres., Roanoke, Va., has purchased plant of The American Box Co., will operate in connection with its own factory.

Tex., Dallas—Lacey Oak Flooring Co., 206 Western Indemnity Bldg., organized with Roger Lacey, Pres.; F. M. Abbott, Sec.-Treas.; E. D. Rogers, Mgr.; plans indefinite for erection of plant, invite bids; will install matchers, saws and re-saws, planers, etc.; daily output 35,000 ft. oak flooring. (Lately noted incorporated capital \$300,000.)

Tex., San Antonio—Gulf State Simplex Rim Co. increased capital from \$20,000 to \$60,000.

FIRE DAMAGE

Ala., Birmingham—80,000 gal. oil tank of Wofford Oil Co., 3331 Tenth Ave., N.; loss \$15,000.

Ala., Daviston—School and building under construction; loss \$15,000. Address School Board.

Ark., Hope—K. G. McRae Hardware Co.'s warehouse.

Ark., Little Rock—U. M. Rose School, 13th and State Sts.; loss \$50,000. Address Board of Education.

D. C., Washington—Gan Co.'s store, 716 7th St., N. W.; loss \$20,000.

Fla., Gainesville—The Lumber Manufacturing Co.'s plant; loss \$50,000.

Ky., Henderson—Ernest Slaughter's residence, Corydon Rd.

Ky., Louisville—Bayless Bros. & Co.'s building, 704-6 W. Main St.

Ky., Paducah—David Bullmer's packing house; loss not estimated.

Md., Baltimore—Lafayette Mill & Lumber Co.'s plant at 2100 W. Lafayette Ave.; loss \$100,000.

Md., Oakland—Cottages owned by John B. Crane, T. A. Deveny, both Fairmont, W. Va., and J. M. Bare, Parkersburg, W. Va.; total loss about \$25,000.

Md., Ruxton (Branch of Baltimore)—Ruxton Inn, Bellona Ave. and Carrollton Road, owned by Dr. T. J. Ward; loss \$10,000.

Mo., St. Louis—Main building of Warren Steel Casting Co., at 3400 Maury Ave.; estimated loss \$100,000.

Mo., St. Louis—Foundry building of the Warren Steel Casting Co.; loss \$40,000.

N. C., Fayetteville—Clarendon Laundry plant, loss \$15,000; building owned by Col. Terry A. Lyon, Washington, D. C.

Okla., Kellyville—Central Hotel and 2 pool halls; loss \$12,000.

Okla., Renfrow—Mills and warehouse of The Renfrow Flour Mills, Ltd.; estimated loss \$225,000.

S. C., Leesville—Newspaper plant of Batesburg-Leesville News and adjoining properties; loss not estimated.

Tex., Fort Madison—Gulf, Colorado & Santa Fe Ry. Co.'s bridge over Mississippi River, over \$1,000,000 loss; E. Merritt, Ch. Engr., Galveston, Tex.

Va., Roanoke—Plant of Ideal Steam Laundry at 728 Church Ave.; loss \$50,000.

Va., Roanoke—Bowman's Bakery, 306 Commerce St.; loss \$15,000.

Damaged by Storm.

Mo., Seligman—Six bridges of Missouri & North Arkansas R. R. Co., between Eureka Springs and Seligman; Hans Schantl, Ch. Engr., Bonne Terre, Mo.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

Fla., Miami—J. E. Pyle and D. C. Clark will erect \$20,000 apartment house, 4th Ave. and N. W. 2nd St.; 68 x 44.4 ft.; concrete block.

Md., Hagerstown—Myer Berkson and Louis Myers will erect apartment house on site of burned structure, W. Franklin St.; 41x 175 ft.; 2 stores.

Mo., University City (Station St. Louis)—Schuermann & Neuman, Archts.-Contrs., will erect 50 single flats, on Crest, Etzel and Bartmer Aves., Pershing School Terrace; 5 rooms and bath; built-in tubs and china closets, separate hot water heating plants, instantaneous hot water heaters, laundry trays, etc.; total expenditure \$700,000.

Tenn., Bristol—A. L. Womack, 650 Pennsylvania Ave., will erect 12-suite apartment house; brick; plans to start construction Aug. 1. (See Mch. Wanted—Building Material; Equipment.)

Tenn., Nashville—H. E. Parmer will erect \$9000 2-story apartment house, 12 rooms, \$6000 two-story dwelling, 6 rooms, and \$4500 one-story dwelling, 18th and Edgehill Sts.; all brick veneer.

Tex., Austin—J. R. Bingham will erect \$12,000 two-story apartment house, 1608 Congress Ave.

W. Va., Welch—John W. Blakely and Edw. O'Toole, Jr. will erect 4-story brick apartment house, Riverside Ave.; G. R. Ragan, Archt., 701 Colonial Bank Bldg., Roanoke, Va.; bids opened June 5.

Association and Fraternal.

Fla., Leesburg—Hermion Lodge No. 27, K. of P., purchased site, N. 3rd St., and plans to erect 3-story lodge building.

Md., Hagerstown—Young Men's Christian Assn. will erect addition at rear of present building; 50x82 ft.; probably 6 stories; 30 dormitories, assembly hall, etc.

Miss., Tallulah—American Legion Post, Tallulah Masonic Lodge and Women's Book Club plan to erect frame or brick building; Wm. A. Stanton, Archt., Vicksburg.

N. C., Winston-Salem—Young Men's Christian Assn., R. C. Norfleet, Chmn., Board of Trustees, will erect building, Spruce St. near Fourth St.

S. C., Columbia—Salvation Army, R. Charlton Wright, Vice-Pres., will erect \$10,000 building.

Tex., Waco—McLennan Lodge No. 241, I. O. F., Dave Meers, T. Ed Smith and W. W. Taylor, Trustees, are considering erecting \$25,000 building.

W. Va., Huntington—Central Labor Union considering erecting 4-story Labor Temple; storerooms on first floor.

Bank and Office.

Fla., Miami—S. M. Tatum will erect fireproof office building, E. Flagler St. and S. E. 2nd Ave.; 2 stories to be erected at present, with foundation and walls built to carry 8 additional stories; Spanish type; 152x60 ft.; structural steel and concrete; tile or concrete curtain walls; present cost \$100,000; ultimate cost \$500,000; 2 elevator shafts; stores on first floor, 22 offices on second; Kiehnell & Elliott, Archts., 245 Fourth Ave., Pittsburgh, Pa., and Miami.

La., Baton Rouge—Elks' Theatre Co., Judge H. F. Brunot, Alex Grouchy, Jr., and others, will erect 4-story and basement building to replace burned structure, 3rd and Florida Sts.; fireproof; 54x128 ft.; stores on first floor, offices above; Favrot & Livaudais, Archts., Perrin Bldg., New Orleans; bids opened June 15. (Lately noted.)

Mo., Kirksville—Citizens National Bank will erect 2-story building; marble; Ionic projecting columns; Irvin Dunbar, Archt., Kirksville. (Lately noted to remodel building.)

S. C., Greenville—Southeastern Life Ins. Co. will erect 3-story brick building, W. McBee Ave.

Tenn., Ripley—First National Bank will erect 1-story brick building; cost \$25,000; stone trim; 33.6x75 ft.; marble and tile interior trim; vaults, safe deposit department; Estes W. Mann, Archt., Memphis.

Churches.

Ark., Wynne—First M. E. Church, South, will erect brick and stone Sunday school addition; 2 stories and basement; 50x125 ft.; oak and pine floors; concrete foundation; hot water heat; cost about \$30,000. Address Estes W. Mann, Archt., Memphis, Tenn. (Previously noted.)

Fla., Hialeah—First M. E. Church, Rev. Frank A. Hamilton, Pastor, care First M. E. Church, Miami, will erect \$11,000 building, Palm Ave.; Spanish mission type; auditorium to seat 200; John S. Maxwell, Archt., Miami. (Lately noted.)

Fla., Lakeland—All Saints Episcopal Church will erect \$25,000 to \$30,000 building; Spanish mission type; 50x117 ft.; steel, hollow tile and stucco; red tile roof; tower with electric chimes; Sunday school rooms in basement; auditorium to seat 500; chapel to seat 50; pipe organ; H. D. Mendenhall, Archt., Lakeland.

Fla., St. Petersburg—St. John's Episcopal Church, 906 S. Orleans Ave., plans to erect building. Address The Rector.

Ga., Columbus—St. Luke Methodist Church, F. J. Dudley, Chmn., Bldg. Comm., plans to erect \$60,000 addition; 2 wings, L-shape.

Ky., Henderson—First Methodist Church, Rev. J. W. Perry, Sec., Board of Missions, plans to erect \$10,000 building on Clay St.

Md., Baltimore—St. John's Evangelical Lutheran Church, Rev. F. Carl Rueggeberg, Pastor, will erect \$100,000 parish house adjoining present building, Lombard and Catherine Sts.; Gothic type; brick; limestone trim; 50x160 ft.; 3 stories; 10 classrooms and auditorium to seat 600 on first and second floors, bowling alleys, dining hall and kitchen on ground floor; Otto G. Simonson, Inc., Archt., Md. Casualty Tower Bldg., Baltimore; plans rectory later.

Miss., Corinth—Christian Church will erect brick building; stone columns; auditorium, Sunday school rooms, etc.; H. T. McGee, Archt., Scimitar Bldg., Memphis, Tenn.

Miss., Lula—Methodist Church, Dr. N. Yates, Chmn., Bldg. Comm., will erect \$15,000 building; English chapel type; mat brick; stone trim; hot air heat; Alsop & Callanan, Archts., Rand Bldg., Memphis, Tenn.

Mo., Lohman—Lutheran Church, Rev. Mr. Biederman, Pastor, plans to erect building; capacity 600.

N. C., Asheville—Trinity Episcopal Church will not enlarge building as lately reported.

N. C., Mineral Springs—Ogburn Memorial Methodist Church, Rev. John Cline, Pastor, will erect \$12,000 brick building; auditorium 32x40 ft.; 9 Sunday school rooms.

N. C., Mt. Holly—Baptist Church, Rev. E. C. Andrews, Pastor, will erect \$50,000 building; pressed brick; sandstone trim; auditorium to seat 750; 24 Sunday school rooms; construction begun.

N. C., Winston-Salem—North Winston Baptist Church, W. O. Gilbert, Chmn., Bldg. Comm., will erect auditorium and Sunday school building; 3 stories; 90x150 ft.; auditorium to seat 1000; 3 entrances; portico with marble columns and steps; face brick; Sunday school section, 90x58 ft., with separate entrances; kitchen, heating plant, etc., in basement; C. Gilbert Humphreys, Archt., 111 W. 4th St., Winston-Salem. (Previously noted.)

N. C., Winston-Salem—Southside Baptist Church, Rev. V. M. Swain, Pastor, will erect building, Church and Sprague Sts.; capacity 700; Sunday school facilities; cost \$75,000, completed and equipped; W. H. Black, Constr. Supervisor, Winston-Salem. (Previously noted.)

S. C., Camden—Presbyterian Church will erect Sunday school building; J. Carroll Johnson, Archt., Columbia; bids until June 4 at First Nat. Bank, Camden.

S. C., Columbia—First Presbyterian Church, Dr. W. D. Melton, Pres., Univ. of South Carolina, Chmn. Expansion Comm., is considering enlarging church.

S. C., Fountain Inn—J. T. Brooks, Sec., Bldg. Comm., will receive bids until June 10 to erect church building; plans from Mr. Brooks or Rev. W. H. Polk, both Fountain Inn.

Tenn., Knoxville—First Presbyterian Church, Dr. Eben Alexander, Chmn. Bldg. Comm., plans to erect 2 wings at rear of present building; 2 stories and basement, each connected by corridors; install central heating plant in sub-basement.

Tenn., Nashville—Belmont Heights Baptist Church, Rev. John D. Freeman, Pastor, Albemarle Apt., will erect \$80,000 to \$90,000 building, 16th Ave., South, near Belmont Blvd.; 108x143 ft.; 1 and 2 stories; concrete and hardwood floors; stone foundation; steam heat; electric lights; Baptistery, lavatories, toilets; Hart & Nevins, Archts.; Friedman & Roberts, Engrs.; both Nashville. (Lately noted.)

Tenn., Nashville—Vine St. Christian Church will erect \$13,000 Sunday school building, 140 Seventh Ave., North; 3 stories; brick. Address The Pastor.

Tex., Fredericksburg—M. E. Church, Rev. G. H. Houy, Pastor, will erect \$20,000 building; stone, cement and brick; 40x70 ft.; 2 stories and basement; cement and wood floors; cement foundation; tin roof; H. F. Kuehne, Archt., Austin; contr. not decided. (Lately noted.)

Tex., San Antonio—First Presbyterian Church will erect \$75,000 young people's building; reinforced concrete; fireproof; 3 stories and roof garden with stage; 66x170 ft.; concrete and hardwood floors, iron and beam construction; concrete foundation; promenade tile roof over concrete; hollow fireproof and inferior tile; metal doors; refuse chutes; stage lights; ventilators; rolling partitions; steel sash and trim; wire and cathedral glass; cut stone; grilles for elevator enclosure; Paul G. Silber & Co., Archts.; 331 Bedell Bldg., San Antonio; bids opened June 6; separate contracts for electric wiring, electric elevator, plumbing, heating, and ventilating.

Va., Eagle Rock—Baptist Church, E. C. Davis, Pastor, will erect building.

Va., Roanoke—First Methodist Church, Rev. J. H. Ford, Pastor, plans to erect building.

Va., South Boston—Baptist Church will erect \$40,000 building; concrete, pressed brick, hardwood floors, rolling partitions, art glass, stone, slate roofing, iron beams, etc. Address J. W. Throen. (Lately noted.)

W. Va., Hinton—Central Baptist Church will erect \$58,000 building; 70x80 ft.; 3 stories; brick and Indiana limestone; auditorium to seat 1000; 30 classrooms, etc.; Fred Crowther, Archt., 312 Morrison St., Charleston.

W. Va., Huntington—Trinity P. E. Church, D. B. Gwinn, Chmn., Finance Comm., will erect \$75,000 parish house, 5th Ave. and 11th St.; gymnasium, auditorium, Sunday school facilities, clubrooms, etc.; W. F. Diehl, Archt., Huntington. (Previously noted.)

W. Va., Wheeling—Catholic Church, Rt. Rev. Bishop Swint, in charge of diocese, will erect \$30,000 Italian church, 124-26 Eighteenth St., Rev. Anthony Raddochia will be Pastor.

City and County.

Fla., Ocala—Community Building—City, L. H. Chazal, Sec., Marion County Chamber of Commerce, will vote July 17 on bonds, including \$50,000 for community building.

N. C., Winston-Salem—Market—City will erect market, Cherry and 6th Sts.; 1 and 2 stories; 100x240 ft.; fireproof; concrete and

brick; stone trim; concrete floors and foundation; hollow fireproof and interior tile; metal ceilings and doors; vault lights; ventilators; ornamental terra cotta; steel sash and trim; wire glass; refrigerating system and heating plant in basement; locker rooms; showers; sidewalk elevators; W. C. Northrup, Archt., Winston-Salem; Wiley & Wilson, Engrs., Lynchburg, Va.; low bids as follows: Northeastern Construction Co., Charlotte, for general contract, \$159,751; Southern Plumbing Co., Winston-Salem, plumbing, \$8495; Armstrong Cork Co., Charlotte, cold storage, \$19,996; Cincinnati Butchers Supply Co., Cincinnati, O., fixtures, \$15,530; Atlanta Marble & Tile Co., Atlanta, Ga., tilework for storage rooms and fixtures, \$6520; W. J. Westbrook Elevator Co., Greensboro, elevators, \$3990; Crawford Mill Supply Co., Winston-Salem, heating, \$9979; Southern Constr. & Supply Co., Atlanta, refrigerators, \$28,924. (Lately noted.)

Tex., Houston—City Hall—City, O. F. Holcombe, Mayor, will vote June 12 on bonds to erect 19-story city hall, Travis and Congress Sts.; \$1,750,000; 237x170 ft.; to connect with present city hall on Milam St.; polished granite; natural stone to third story, terra cotta above; parking space for 200 automobiles in basement; stores and market space on first floor, city offices on second, third and fourth, rental offices above. (Lately noted.)

Tex., Houston—Zoo—City, O. F. Holcombe, Mayor, will erect first unit of city zoo, Cleveland Park; W. A. Dowdy, City Archt., 207 City Hall; bids opened June 4.

Tex., Waco—Jail—McLennon County plans to erect jail building; 6 stories and sub-story; Herman F. Cason, Archt., Waco.

Courthouses.

Mo., Greenville—Wayne County Comms. are considering erecting courthouse; may call \$50,000 bond election.

N. C., Graham—Alamance County, N. O. Warren, County Mgr., will erect \$225,000 courthouse, Greensboro-Raleigh Highway; granite and terra cotta; 3 stories and basement; 57x100 ft.; concrete, composition and tile floors; composition roof; Harry Barton, Archt., Greensboro. (Lately noted.)

Dwellings.

Fla., Lake Wales—Florida Growers Assn., A. J. LaGess, Pres., Lake Wales, will erect club, dwellings, etc., in connection with development of 3000-acre tract at Templetown near Lakes Wales; H. P. Sturges, Archt., 79 W. Monroe St., Chicago, Ill.

Fla., Miami—G. W. Gabel will erect 2 frame bungalows, one west of Lemon City high school and one north of Allapattah school; 4 rooms; will erect 15 to 20 during summer.

Fla., Miami Beach—H. S. Bastian will erect \$17,000 residence and garage, 1516 Collins Ave.; 2 stories; cement block, stuccoed; concrete foundation; tile roof; concrete and hardwood floors; interior tile; owner builds and installs heating plant; J. F. Ambrose Co., electrical work; A. F. Dubbs, plumbing; both Miami Beach. (Lately noted.)

Fla., St. Petersburg—Carlton W. Beard will erect \$13,000 frame residence, 4th Ave. and Disson Ave., North; 8 rooms.

Ga., Atlanta—Dr. Willis Jones will erect \$50,000 brick residence, 1479 Peachtree St.

Ga., Hogansville—International Cotton Mills, Boston, Mass., will erect 100 to 125 operatives' dwellings at New Stark Mills, Lockwood, Greene & Co., Engrs., 24 Federal St., Boston, and Atlanta.

Ky., Louisville—F. B. Von Roenn will

erect 10 dwellings, 1880-89 Ivanhoe Court; \$4000 each.

Md., Baltimore—Henry P. Hopkins, 347 N. Charles St., will erect \$11,000 residence, N. E. Corner Elmwood Rd. and Sunny Lane; 2 stories; frame; 37.8x25 ft.

Md., Baltimore—Morris Fleishman, Fleishman Bros. Co., 37 Hopkins Place, will erect 2 two-story brick dwellings, N. W. cor. Park Hgts. and Patapsco Aves.; total \$12,000.

Md., Baltimore—Herbert Reed, 932 N. Fulton Ave., and others, will erect 6 two-story frame dwellings, N. W. cor. Arbutus and Mortimer Aves.; total cost \$24,600.

Md., Baltimore—Harry F. Shew, Jr., 3717 Liberty Hgts. Ave., will erect 10 two-story brick dwellings, east side Longwood St., south of Presbury St.; total cost \$24,000.

Md., Baltimore—Howard P. Skinner, 404 Evesham Ave., will erect 2 two-story frame cottages, 361-371 Evesham Ave.; total cost about \$10,000.

Md., Baltimore—Jas. J. Brothers, 1710 E. Eager St., will erect 5 two-story brick dwellings, N. W. cor. Montpelier and Polk Sts.; 18x32 ft.; hot air heat; total cost \$12,000; (Lately noted.)

Md., Baltimore—Merin Bros., 2225 Callow Ave., will erect 2 shingle cottages, north side Glen Ave., east of Howard Ave.; 2 1/4 stories; total cost \$18,000.

Mo., St. Louis—David P. Wohl, Pres. David P. Wohl Shoe Co., will erect \$40,000 residence, Forsyth Blvd., west of Skinker Rd.

N. C., Charlotte—E. J. Berry will erect 9-room brick veneer residence on the Plaza; cost about \$10,000.

S. C., Batesburg—J. R. Unger will erect residence; 2 stories and basement; 9 rooms; brick veneer and hollow tile; tile roof; hot water heat; Lafaye & Lafaye, Archts., Columbia, S. C.

S. C., Columbia—J. B. Wallace will erect bungalow, 2100 block Marion St.; construction begun.

S. C., Greenwood—G. W. Rush will erect 2-story residence; hollow tile for first floor, cypress weather boarding above; Jas. C. Hemphill, Archt., Greenwood; bids opened June 4.

Tenn., Memphis—Edgar Webster, Jr., Atty., will erect Dutch Colonial residence, Poplar Pike, east of Highland Ave.; Raymond B. Spencer, Archt., Goodwyn Institute Bldg., Memphis.

Tenn., Memphis—W. R. Gilbert is erecting 4 dwellings, Montgomery St. between Flett and Poplar Aves.; cost about \$6500 each; Raymond B. Spencer, Archt., Goodwyn Inst. Bldg., Memphis; plans to erect several more later.

Tenn., Memphis—Frank Jeselnick and daughter will erect two \$10,000 bungalows, Clark Place; brick veneer and stonekote; green asphalt shingle roof; 5 rooms and tile bath each; Henry J. Kramer, Archt., Memphis.

Tenn., Memphis—C. F. Work, care Golf Shaft & Block Co., will erect brick veneer and stone residence, Belvidere Blvd. near Peabody Ave.; tile roof and porch; sun parlor; 3 baths; heating plant and laundry in basement; 3 car garage and servants' quarters in rear; Walter R. Nelson, Archt., Memphis.

Tenn., Memphis—A. J. Cook will erect residence, Forrest Ave. near Hawthorne St.

Tenn., Memphis—L. L. Diehl will erect residence, Forrest Ave. near Hawthorne St.

Tenn., Nashville—Robinson Realty Co. will erect three \$5000 dwellings, 747-51 Roycroft Place; 1 story 5 rooms; brick veneer.

Tex., Austin—Mrs. T. R. McKeever will erect \$10,000 residence, Enfield; 2 stories; stone.

Tex., Laredo—J. L. Crawford will erect 6-room brick and stucco residence; Phelps & Dewees, Archt., San Antonio; construction begun by day labor.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Tex., San Antonio—Curtis T. Vaughan, Gibbs Bldg., will erect 2-story residence, Terrell Rd.; metal lath and stucco; about 46x52 ft.; hardwood floors; concrete piers; shingle roof; interior tile; hot air heat; Richard Vander Straten, Archt., Hicks Bldg.; W. C. Perry, low bidder at \$23,222; bid for garage, \$2567; Jud & Ormond, low bid for plumbing and Martin Wright for wiring; all San Antonio; bids opened June 4.

Tex., San Antonio—Geo. Wilson will erect \$20,000 residence; 2 stories; brick and stucco; Adams & Adams, Archts., Bedell Bldg., San Antonio; bids opened June 4.

Va., Richmond—G. R. Mayo, 2222 Chaffin St., will erect two stucco dwellings, lots 17 and 18, Ginter Park Terrace; 2 stories; 26x30x32 ft.; brick foundations; wood floors; slate roofs; hot water heat; total cost \$14,000; plans and construction by owner.

Va., Richmond—W. D. Hurt, 104 Graham Rd., will erect \$12,000 residence, Edge Hill Rd. and Chamberlyne Ave.; 2 stories; 30x32x28 ft.; brick; slate roof; brick foundation; wood floors; hot water heat; plans and construction by owner.

Va., Richmond—A. L. Sharp, 3303 Stuart Ave., will erect 2 dwellings, 3225-27 Hanover Ave.; brick; 2 stories; 23x36x30 ft.; brick foundation; tin roof; wood floors; hot water heat; total cost \$18,000; plans and construction by owner.

W. Va., Charleston—Bernard Barnes will erect \$25,000 residence, South Side; Fred Crowther, Archt., 312 Morrison St., Charleston.

W. Va., Charleston—R. O. Newcomb, 201 Kanawha Bank & Trust Bldg., purchased lots on Virginia and Ohio Aves., between 22nd and 27th Sts., Kanawha City, and will erect 20 six-room brick and tile dwellings; total cost \$200,000; also plans to erect number of dwellings on Kanawha Ave., Kanawha City.

W. Va., Charleston—Jeff Eskew will erect \$25,000 residence, South Side; Fred Crowther, Archt., 312 Morrison St., Charleston.

W. Va., Charleston—Rev. R. H. Merrill will erect \$35,000 English type residence, South Hills; Fred Crowther, Archt., 312 Morrison St., Charleston.

W. Va., Charleston—L. R. Pelzel will erect \$15,000 residence, Edgewood Drive; stucco; broken rubble foundation; slate or tile roof; Fred Crowther, Archt., 312 Morrison St., Charleston.

W. Va., Dunbar—M. E. Church plans to erect parsonage adjoining church on Grosscup Ave. Address The Pastor.

W. Va., Huntington—J. A. Hughes, Ashland, will erect number of dwellings in connection with development; cost \$5000 and up; John R. Guskie, Archt.; R. W. Breese, Engr.; both Huntington; owner builds. (See Mch. Wanted—Building Material.)

Government and State.

Ala., Anniston—Post Office and Courthouse—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until June 25 for extension to building and driveway at post office and courthouse; specifications and drawings from Custodian at site or from office Supervising Archt.

Ala., Huntsville—Post Office—Postmaster R. L. O'Neal has plans for 1450-sq. ft. addition to post office.

Mo., Columbia—Post Office—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until June 20 for extension to building and driveway at post office; specifications and drawings from Custodian at site or from office Supervising Archt.

Hospitals Sanitariums, Etc.

Ga., Thomasville—John F. Archbold, 12 Broadway, New York, will erect John D. Archbold Memorial Hospital, comprising hospital buildings, nurses' home, heating and refrigerating plant, laundry building, etc.; fireproof; 110 beds; cost about \$1,000,000; E. C. Wachendorf, Archt., 620 Forsyth Bldg., Atlanta, Ga.; drawings completed by early fall. (Lately noted.)

Md., Baltimore—Sisters of Bon Secour will erect 2 additional wings to hospital, Fayette and Pulaski Sts., west wing for hospital and east wing for nurses' home and chapel; fireproof; porches 17 ft. wide; Jos. Evans Sperry, Archt., Calvert Bldg.; bids opened June 5.

Md., Perryville—U. S. Veterans' Bureau, Frank T. Hines, Director, Arlington Bldg., Washington, D. C., will receive bids until June 25 for construction, complete, of occupational therapy building at U. S. Veterans' Hospital No. 42; work includes hollow tile and stucco walls, interior plaster, interior and exterior painting, excavating and concrete foundations; slate roof, and all inside plumbing, heating and electric installations; drawings and specifications from Maintenance and Repair Sub-Division, Room No. 790, Arlington Bldg., and for inspection only, at site.

Mo., Joplin—John W. Freeman, 20th St. and Sergeant Ave., will erect Freeman Memorial Hospital; cost \$125,000; fireproof.

N. C., Greenville—Dr. E. T. Dickenson, Wilson, and others, have plans for 100,000 hospital; will accommodate about 100.

Okla., Sulphur—Oklahoma Soldiers' Relief Comm., Horace H. Hagan, Chmn., 302 Commercial Bldg., Tulsa, will erect additional hospital buildings at Soldiers' Tubercular Hospital; cost \$100,000; provide for 70 patients; Atkinson & Olston, Archts., 816 Mayo Bldg., Tulsa; bids opened June 4. (Lately noted.)

Tenn., Lenoir City—City will vote Aug. 4 on \$30,000 bonds for hospital. Address City Council. (Lately noted.)

Hotels.

Ark., Hot Springs—Chas. G. Orr will erect building to replace Marquette Hotel lately noted burned; cost \$25,000; fireproof; 120 rooms.

Fla., Manatee—I. T. Roberts, Birmingham, Ala., is promoting erection of hotel, clubhouse, cottages, etc., near Manatee; total cost \$2,000,000 to \$2,500,000; hotel to have 600 rooms; reinforced concrete; cottages and clubhouse, Spanish mission style; hollow tile, stucco exterior and tile roofs; M. Leo Elliott, Archt., Tampa; has 42,000 acres of timber land for game and fish preserve.

Ga., Macon—H. Gordon will erect addition to Reed Hotel; 1 story; 71 rooms.

La., Shreveport—Yource Hotel will remodel and erect additions to building; cost \$200,000; Albert Neild, Archt., Shreveport.

Md., Salisbury—Wicomico Hotel Co., Fred P. Adkins and others, will erect \$250,000 hotel; fireproof; 75 rooms; B. K. Gibson Co., Archt., 624 S. Michigan Ave., Chicago. (Previously noted.)

Miss., Hattiesburg—Park Hotel Co., incorporated by Dr. J. D. Donald, Dr. L. W. Bayne and V. W. Pryor and will erect hotel; fireproof; Robt. E. Lee, Archt., Hattiesburg.

Miscellaneous.

S. C., Florence—Clubhouse—Dr. F. H. McLeod is interested in organization of \$30,000 corporation to erect clubhouse, etc.

Tex., Houston—Market—Henke & Pillot are reported to erect community market on Main St. between Anita St. and Dennis Ave.; \$60,687; hollow tile and stucco.

Va., Heathsville—Clubhouse—Chesapeake Country Club, Judge Alvin T. Embrey, Pres., purchased 2000-acre tract on Potomac River and will develop for country club; cost \$500,000; erect clubhouse, dining room, individual cottages, swimming pool, stables, athletic courts, golf course, etc.; Phillip N. Sterne, Archt., Fredericksburg. (Lately noted at Va., Fredericksburg.)

Va., Richmond—Westmoreland Club, Henry S. Hotchkiss, Chmn., Bldg. Comm., will receive \$50,000 addition; 21 rooms; also repair and paint present structure. (Previously noted.)

W. Va., Charleston—Clubhouse—Kanawha Holding Corp., H. R. Stapp, Pres., will receive bids until June 25 to erect \$130,000 building; 1 story and mezzanine; 60x300 ft.; stucco and tile; concrete, hardwood and tile floors; interior tile; steel sash and trim; wire glass; concrete foundation; tile roof; Louis J. B. Lott, Archt., Dayton, Ohio. (Lately noted.)

Railway Stations, Sheds, Etc.

N. C., Ahoskie—Atlantic Coast Line R. R. Co., J. E. Willoughby, Ch. Engr., Wilmington, will erect addition to station; 24x50 ft.; 1 story; frame; wood floors; composition roof.

Schools.

Ala., Athens—Athens College for Young Women will erect dormitory.

Ala., Bessemer—Board of Education will erect high school; \$150,000 bonds voted. (Previously noted.)

Ala., Daviston—School Board will erect high school to replace structure noted burned at loss of \$15,000.

Ala., Enfauila—City, H. H. Conner, voted \$100,000 bonds to erect high school. (Lately noted.)

Ala., Greensboro—School Board will erect high school; \$10,000 bonds voted.

Ala., Montgomery—Board of Education, L. C. Cardinal, Pres., will erect \$500,000 high school, Court St. and Semmes Ave.

Ala., Montgomery—City Board of Education will erect \$500,000 high school.

Ala., Red Level—Board of Education will erect \$20,000 school.

Ala., Talladega—City, M. R. Joiner, Mayor, voted \$100,000 to erect high school. (Lately noted.)

Ala., Thomaston—City, W. K. Chapman, Mayor, will erect school; 1 story; 6 rooms and auditorium; bids opened June 5.

Ark., Conway—Hendrix College, Dr. Jas. Thomas, Little Rock, Chmn., Trustees, will erect stadium; seat 5000; bids opened June 4.

Ark., Little Rock—Board of Education will rebuild U. M. Rose School, 13th and State Sts., noted damaged by fire at loss of \$50,000; also replace Forest Park Grammar School destroyed by storm.

Ark., Forrest City—Forrest City Special School Dist. No. 7 voted \$30,000 bonds to erect school for negroes, buy playgrounds for Central School and pay indebtedness. Address Dist. School Trustees.

Ark., Marion—Board of Education will erect addition to building for high school; cost \$60,000; 12 classrooms, gymnasium and auditorium; also erect \$10,000 addition to colored school; Jones & Furbringer, Archts., Memphis, Tenn.

Fla., Eustis—City will vote June 23 on \$60,000 bonds to remodel and enlarge building. Address Board of Public Instruction.

Fla., Miami Beach—County Board of Public Instruction, Chas. M. Fisher, Supt., will erect \$16,000 addition to school; 4 rooms; H. Geo. Fink, Archt.; also plans to erect \$25,000 addition to school.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

000 building at Coral Gables; 6 rooms. (Lately noted in part.)

Fla., St. Cloud—St. Cloud Special School Dist. Trustees will erect high school; cost \$45,000; P. C. Samwell, Archt., Winter Park. (Lately noted.)

Ga., Andersonville—School District Trustees will erect 2-story brick veneer building; \$12,000 bonds voted. (Lately noted.)

Ky., Hopkinsville—Women's College will erect auditorium and dining hall.

La., Baton Rouge—Louisiana State University Bldg. Comm., Dalton Raymond, Chmn., will receive bids until June 15 to erect George Peabody Hall; 3 units, one for elementary, one for high school and one for teachers' college; 2 stories and basement; U shape; 244x152 ft.; Theo. C. Link, Archt., fourth floor Capitol Bldg., Baton Rouge. (Previously noted.)

La., Vinton—Calcasieu Parish School Board, F. K. White, Sec., Lake Charles, will erect negro frame school at Vinton and addition to Lagrange School; bids opened June 5; R. S. McCook, Archt., Lake Charles.

Md., Elkton—Ceell County School Board will erect \$150,000 high school. (Previously noted.)

Mo., Kansas City — Barstow School, 15 Westport Ave., plans to erect \$150,000 building at 48th St. and Rockhill Road; 106x89 ft.; Hoit, Price & Barnes, Archts., Kansas City.

Mo., Mexico—W. B. Snyder, Brazil, Ind., is considering erection of \$150,000 memorial conservatory of music building at Hardin College.

N. C., Fairview—County Board of Education, Asheville, is considering calling election on \$50,000 bonds to erect school.

N. C., Raleigh—St. Mary's School for Girls will erect dormitory; cost \$100,000. Address Jos. Blount Cheshire, D. D., Bishop of North Carolina, Raleigh.

N. C., Red Springs—School Board will improve building; alter interior, install heating, repair roof, etc.

N. C., Shelby—Cleveland Springs Hotel Co. will convert assembly hall into 75 guest rooms.

N. C., Smith Grove—Davie County Board of Education, Mocksville, will receive bids until June 7 to erect school; plans and specifications at office W. C. Northup, Archt., Starbuck Bldg., Winston-Salem.

N. C., Wilmington—New Hanover County Board of Education, Herbert McClammy, Pres., will receive bids until June 11 to erect 2-story brick and frame addition to Isaac Bear Memorial School, 2-story brick and frame building for Peabody School and brick and frame building at Wrightsboro; plans and specifications at office L. N. Boney, Archt., and W. A. Graham, Supt. of Schools, both Wilmington.

Okl., Ringwood—Trustees, Consolidated School Dist. No. 1 will erect building; \$25,000 bonds voted.

S. C., Columbia—University of South Carolina, Dr. W. D. Melton, Pres., will receive bids until June 9 to erect additions to Woodrow College and install additional boiler; plans and specifications at office Lafaye & Lafaye, Archts., 1002 Loan & Exchange Bldg., Columbia.

S. C., Gaffney—Limestone College, Dr. R. C. Cranberry, Pres., will erect hall of science, fine arts building, library and gymnasium.

S. C., Greenville—City Board of Education will erect \$100,000 addition to Central High School building on Wilton St. for grammar school, negro school on Sullivan St. and

primary school on E. Park Ave.; J. E. Sirrine & Co., Archts., Greenville. (\$240,000 bonds lately noted voted.)

S. C., Greenville — Parker School Dist. Trustees, R. W. Arrington, Sec., will erect \$100,000 high school and improve Mills-Dunnean, West Greenville, Sans Souci and Park Place schools at cost of \$50,000; J. E. Sirrine & Co., Greenville, Archts. for high school; Paul J. Oeland, Greenville, will supervise improvements and enlargements to other schools. (\$300,000 bonds lately noted voted.)

S. C., Guthriesville—Guthriesville and McConnellsville Dist. consolidated and will erect \$18,000 school. Address County Board of Education, York.

Tenn., Chattanooga—City will vote July 10 on \$750,000 bonds to erect schools and improve present structures. Address Board of Education.

Tenn., Cleveland—City and Bradley County will vote June 30 on \$75,000 bonds to erect buildings for Southside and College Hill schools in city, \$100,000 school bonds for county and \$45,000 funding bonds. Address The Mayor and County School Commissioners. (Lately noted.)

Tenn., Lenoir City—City will vote July 7 on \$40,000 bonds to erect primary school and on Aug. 4 on \$30,000 bonds to erect hospital. Address The Mayor.

Tenn., Morristown—Town voted \$200,000 bonds to erect high school under construction. Address Board of Education. (Lately noted.)

Tex., Bertram—School Trustees plan to erect building; election June 9 on \$20,000 bonds.

Tex., Canton—School Trustees will erect building; \$25,000 bonds voted.

Tex., Celeste—Celeste Independent School Dist. Trustees will erect building; \$14,500 bonds voted.

Tex., Eagle Lake—School Trustees, J. A. Dromgoode and others, will erect \$150,000 high school; Giesecke & Harris, Archts., Austin. (Lately noted.)

Tex., Houston—Harris County, H. L. Washburn, Auditor, will receive bids until June 11 to repair Girls' School; Endress & Cato, Archts., Bankers Mortgage Bldg., Houston.

Tex., Houston—Rice Institute will erect chemical laboratory; cost \$375,000; 3 stories and basement; fireproof; 12 large laboratories, 16 small laboratories and research rooms, 7 classrooms, 3 lecture rooms and amphitheater, 2-story store and vault for chemicals; elevator and lift service; Wm. Ward Watkin, Houston, Archt. in charge; bids about June 25.

Tex., Howe—Howe Independent School Dist. Trustees will erect building; \$25,000 bonds voted.

Tex., Killeen—School Board will erect \$55,000 building to replace burned structure; \$35,000 bonds voted.

Tex., Grafard—School Board will erect high school; \$23,000 bonds voted.

Tex., La Grange—La Grange Independent School Dist. voted \$115,000 bonds to erect building; Jno. Schroeder, Secy., Board of Education. (Lately noted.)

Tex., Lingleville—School Board, G. F. Wilcox, Sec., plans to erect building; election June 9 on \$14,000 bonds.

Tex., Sherman—Kidd-Key College and Conservatory of Music, Rev. E. L. Spurlock, Greenville, Pres., will remodel building and install hot and cold water.

Tex., Smithville—School Board will erect high school building.

Tex., South Bosque (P. O. Waco)—South Bosque School Dist will erect addition to building; \$12,500 bonds voted; H. S. Beard, County Supt. of Schools, Waco. (Lately noted.)

Tex., Spur—Clifford B. Jones is Chrmn. of Comm. to select architect for buildings to be erected by West Texas Technological College; \$1,000,000 appropriation available.

Tex., Waco—Highland Park School Trustees, J. J. Dean, E. Kellner and Dr. J. W. Murphy, will erect addition to school; 4 rooms and auditorium; \$24,000 bonds voted; T. Brooks Pearson, Archt.; J. S. Beard, County Supt. of Schools, both Waco. (Lately noted.)

Tex., Windom—School Dist. Trustees plan to erect \$30,000 building.

Tex., Wolfe City—City voted \$50,000 bonds to erect high school. Address The Mayor. (Lately noted.)

Va., Capron—Southampton County School Board, Courtland, will receive bids until June 5 to erect 8-room school with auditorium; plans and specifications at office Robt. M. Newton, Div. Supt. of Schools, Franklin.

Va., Grundy—Grundy Academy, Dr. J. Hopwood, Pres., will erect building to accommodate 75 students and change name to Mountain Industrial Institute.

Va., Richmond—Board of Education, C. P. Walford, Clk., will receive bids until June 22 to erect colored elementary school, First and Eight Sts.; separate bids for heating; plans and specifications at office Chas. N. Robinson, Archt., Times-Dispatch Bldg., Richmond, and Builders' Exchange.

W. Va., Parkersburg—School Board will erect first unit of \$150,000 stadium for Parkersburg High School; cost \$50,000; reinforced concrete.

W. Va., Welch—Brown's Creek Dist. Board of Education will erect high school to replace burned structure; W. C. Cook, Supt. of County Schools, Welch; Mahood & Van Dusen, Archts., Bluefield.

W. Va., Wheeling—Woodsdale School District Trustees will erect \$50,000 addition to Woodsdale School; auditorium and gymnasium.

Stores.

Fla., St. Petersburg—F. W. Woolworth Co. will erect \$50,000 building on Central Ave.; 2 stories; fireproof; plans by company's architects.

Ky., Poorfork—J. A. Sumpter & Co., J. A. Sumpter, Mgr., will erect 2 or 3 stores; 50x90 ft.; brick, stone and concrete. (See Machinery Wanted—Building Material.)

La., Baton Rouge—I. M. Causey will erect 2-story store; cost \$25,000; R. S. Soule, Archt., 429 Carondelet St., New Orleans.

La., New Orleans—H. M. Field will receive bids until June 8 at office Walter Cook Keenan, Archt., London, Liverpool & Globe Bldg., to erect store at Carondelet St. and Howard Ave. to replace burned structure; 1 story; 85x120 ft.; fireproof.

Md., Baltimore—Hecht Co., 115-17 E. Baltimore St., will alter building; cost \$14,400.

Mo., Leesburg—Owen Taylor will rebuild store burned at loss of \$15,000.

N. C., Charlotte—W. L. Bruns will erect 2-story store and office building, College and Second Sts.; brick; marble trim; plate glass front; Louis H. Asbury, Archt., Charlotte.

N. C., Greensboro—Mrs. Jas. Fleet, 780 Percy St., and Mrs. E. L. Sides plan to erect 3-story building on N. Elm St.

N. C., Greensboro—Meyers Co. will erect \$150,000 department store; 62x157 ft.; steel

and concrete; composition roof; wood floors; steam heat; Harry Barton, Archt., Greensboro; bids opened about July 10.

N. C., Kinston—Wayne Mitchell will erect building on Queen St.; 20x110 ft.

Okla., Tulsa—Henry Brockman will erect 3-story business building at 10th and 11th Sts.

Tenn., Memphis — Jacob H. Foltz, 169 Adams Ave., plans to erect 2 stores.

Tex., Austin—T. H. Williams & Co. will remodel store at 5th and Congress Sts.; \$15,000.

Tex., Beaumont—D. A. Schulte, Inc., New York, (local representative, Geo. A. Young) will remodel Laundry Building at Pearl and Fannin Sts.; cost \$10,000 to \$15,000.

W. Va., Charleston—Wm. Davis will erect \$12,000 business building, 602 Court St.; 40 x60 ft.; 2 stories; brick.

W. Va., Grafton—Wm. Archdeacon, Jack Riffe and Dr. D. C. Peck will erect \$20,000 building; 2 stories; brick.

Theatres.

Fla., Bartow—Hugh Wear will erect moving picture theater and office building on E. Main St.; cost \$50,000; 75x100 ft.; seat 800.

La., Shreveport—Ehrlich Bros. are reported to erect \$500,000 theater at Louisiana and Crockett Sts. to replace Grand Opera House; seating capacity 2500; Emile Weil, Archt., Whitney Central Bldg., New Orleans.

Warehouses.

Mo., Jefferson City—Cole County Farmers Co-operative Co., Richard Mueller, Daniel Mueller, Jno. Wolken and others will erect warehouse and elevator.

N. C., Kinston—Luther P. Tapp will erect tobacco warehouse; 250 ft. x 250 ft.; steel and iron.

N. C., New Bern—Planters Tobacco Co. will erect warehouse; cost \$35,000.

N. C., Oxford—Oxford Storage and Inspection Co., incorporated with \$100,000 by J. F. Meadows, I. N. Davis, J. F. White and J. R. Wood; will erect warehouse.

Tenn., Chattanooga—James Supply Co. will erect warehouse on E. 11th St.; R. H. Hunt, Archt., Chattanooga.

BUILDING CONTRACTS AWARDED

Association and Fraternal.

Ala., Fairfield—Fairfield Masonic Lodge will erect \$30,000 addition, Gary Ave.; 2 stories; 50x150 ft.; remodel second floor of present building; Holley & Davis, Contrs., Fairfield.

Fla., St. Petersburg—Elks' Lodge, will erect \$97,822 clubhouse, 2nd Ave. and 14th St., South, to be first unit of \$1,000,000 five-story structure; brick and stucco; 100x72 ft.; 2 stories and basement; pine and marbleoid floors; reinforced concrete foundation; Barrett roof; Geo. Feltham, Archt.; Chas. Dubois, Contr.; Joe Shoemaker, heating and plumbing; all St. Petersburg; excavating. (Lately noted.)

S. C., Columbia—J. W. McCormick will erect \$65,000 apartment house, Marion and Senate Sts.; 3 stories and basement; 12 suites of 4 and 5 rooms and bath; 42x127 ft.; reinforced concrete, hollow tile and brick; fireproof; reinforced concrete and iron stairways; oak floors; walnut doors; vapor steam heating plant; built-in tubs and tile floors in bathrooms; J. B. Urquhart, Archt.; W. B. Summerset, Contr.; both Columbia. (Previously noted.)

Tex., Waco—Dr. Lula Pace will erect \$17,000 apartment house, 8th and Speight Sts.; 2 stories; H. J. Ainsworth, Contr., Waco.

Bank and Office.

Fla., Miami Beach—Miami Beach Improvement Co. will erect 2-story concrete office building, Washington Ave. and Lincoln Rd.; 30x48 ft.; Kiehnel & Elliott, Archts.; D. Richard Mead, Contr.; both Miami.

Md., Pocomoke City—City National Bank will erect building to replace burned structure; Owens & Sisco, Archts., Continental Bldg., Baltimore; Mr. Morse, Contr., Salisbury.

S. C., Batesburg—First National Bank will erect addition; Lafaye & Lafaye, Archts.; R. D. McClure, Contr.; both Columbia. (Lately noted.)

S. C., Greenville—C. O. Allen will erect 3-story fireproof building; 60x116 ft.; J. E. Sirrine & Co., Archts., Greenville; plans ready in about 4 weeks; will ask bids as soon as plans completed; building to be finished by Feb. 1; is erecting building, E. Washington

and Brown Sts., for stores and offices; Potter & Shackelford, Contrs., Greenville.

Tenn., Memphis—Robt. York, York Lbr. & Mfg. Co., will erect 5-story medical office building, Madison Ave. and Manassas St.; 4 entrances; elevators; parking space in rear; Hanker & Cairns, Archts., Scimitar Bldg.; Blair Construction Co., Contr.; both Memphis.

Tex., Cameron—Cameron State Bank will remodel 1-story brick building; 33x75 ft.; Paul G. Silber & Co., Archts., 331 Bedell Bldg., San Antonio; S. B. Swigert, Waco, contr., at \$11,450. (Contractor lately incorrectly noted.)

Churches.

Va., Richmond—St. Paul's Episcopal church, 815 E. Grace St., will erect \$83,800 parish house; 4 stories; 48x131x29 ft.; brick; concrete foundation; concrete, pine and hardwood floors; Nelcode and slag roof; steam heat; hollow fireproof tile; Douglas D. Ellington, Archt., Wabash Bldg., Pittsburgh, Pa.; J. C. Beazley Co., Contr., Main St., Richmond. (Previously noted.)

Va., Richmond—St. Paul's P. E. Church will erect \$125,000 parish house, 9th and Grace Sts.; 2 stories and basement; Sunday school rooms, kitchen facilities, etc.; Douglas Ellington, Archt.; J. C. Beazley & Co., Contr.; both Richmond. (Previously noted.)

City and County.

Md., Baltimore—Fire Station—City, Mayor Howard W. Jackson, Pres., Board of Awards, will erect \$42,379 fire engine house, Eastern Ave., west of 26th St.; 2 stories; brick; Robt. L. Harris, Archt., 25 W. Saratoga St.; General Construction Co., Contr.

Dwellings.

Fla., Jacksonville—Mrs. Jos. R. Parrott will erect \$35,500 residence, St. John's St., near Donald St.; 2 stories; tile and stucco; Leadlay Ogden, Contr., Jacksonville.

Fla., Miami Beach—Fredk. J. Osius, Miami, will erect 2-story Spanish type dwelling, Lincoln Rd. and Washington Ave.; John B. Orr, Contr., Miami.

N. C., Greensboro—Wm. Y. Preyer, Sec.-Treas., Vick Chemical Co., will erect \$65,000 residence, Sunset Drive, Irving Park; tile building blocks, stucco and limestone; Chas. Barton Keen, Archt., 1218 Chestnut St., Philadelphia, Pa.; C. J. McMichael, Contr., Greensboro.

S. C., Batesburg—C. R. Dreher will erect brick residence; Lafaye & Lafaye, Archts.; R. D. McClure, Contr.; both Columbia. (Lately noted.)

Tenn., Memphis—Chas. Norfleet will erect \$18,500 residence, 1896 Overton Park; 8 rooms; frame and stucco; J. H. Moselage, Contr.

Tenn., Memphis—Dr. Frank J. Hall will erect \$13,000 Colonial residence, 1183 East Parkway; 2 stories; brick veneer; 2 baths; sleeping porch; Anker F. Hansen, Archt.; J. A. Smith, Contr. (Lately noted.)

Tex., Austin — Kurt Schmedes will erect \$20,838 residence, Baylor St.; 2 stories; brick veneer; Giesecke & Harris, Archts., 406 Littlefield Bldg., Brydson Bros., Contrs., 1612 Guadalupe St.; J. A. Buas & Son, 502 Lavaca St., hot air heat, \$630; Harper & Linscomb, 210 W. 13th St., plumbing and electrical work, \$2550; all Austin. (Lately noted.)

Tex., Cuero—Mrs. Otto Buchell will remodel brick residence; Alfred Giles Co., Archts., San Antonio; H. H. Mayben, contr. at \$12,675; both San Antonio.

Tex., Houston — Craig Belk, Chronicle Bldg., is erecting \$17,000 residence; stucco on metal lath; 2 stories; hardwood floors; concrete foundation; shingle roof; interior tile; ventilators; E. H. Stubbe, Archt.; W. A. Lang, Contr.; Lee Rogerson, heating and plumbing; all Houston.

Va., Richmond—A. H. Herman, Va. P. & P. Bldg., will erect \$10,000 residence, 3716 Brookside Ave.; stucco; 2 stories; 32x28x27 ft.; concrete foundation; slate roof; furnace heat; wood floors; plans by owner; Richmond Construction Co., Contr., 927 Hull St., Richmond.

Va., Richmond—H. B. Melton, 5 N. Elm St., will erect brick residence, 33 W. Franklin St.; 2 stories; 22x34x30 ft.; brick foundation; tin roof; wood floors; hot water heat; plans by owner; W. S. Quarles, Contr., 2612 Hanover Ave.

W. Va., Charleston—Arthur Holz will erect \$15,000 residence, Edgewood Drive; Colonial type; brick and hollow tile; tile roof; 7 rooms; Fred Crowther, Archt., 312 Morrison St., Charleston; W. H. Browder & Son, Contrs., St. Albans.

W. Va., Charleston—John Ray, Kanawha Valley Bank Bldg., will erect \$16,000 residence and garage, off Linden Ave., South Hills; 52x28 ft.; 2 stories; oak floors; concrete foundation; Mohawk asbestos slate roof; R. O. Newcomb, Archt.-Contr., 201 Kanawha Bank & Trust Bldg.; A. E. Lee, plumbing; both Charleston. (Lately noted.)

Hospitals Sanitariums, Etc.

Va., University (Branch of Charlottesville)—University of Virginia will erect \$116,000 orthopedic and obstetrical wing to conform to Steele wing; 4 stories; 50x80 ft.; concrete, hardwood and metal lumber floors; concrete foundation; slate roof; metal doors; wire glass; has central hot water heating plant; Fiske Kimball, Archt., University; W. P. Thurston Co., Contr., Richmond; Sensibaugh Elec. Co., Charlottesville, all electrical work, conduit system; Westbrook Elec. Co., Danville, 1 automatic hospital elevator; plumbing, consisting of about 60 hospital type fixtures, not awarded. (Lately noted.)

Hotels.

Fla., Miami—J. H. Bowlin will erect \$30,000 hotel at 406 Collins Ave.; 2 stories; 30 guest rooms and 22 baths; remodel residence for dining room, kitchen and storage room and connect to hotel by pergola; J. C. Gault, Archt.; J. S. Shaver, Contr., both Miami.

Fla., Miami—Mrs. E. C. McAllister will erect \$500,000 apartment hotel at 227-35 E. Flagler St.; Moorish style architecture; 9 stories; 100x160 ft.; reinforced concrete; marble tile floors; carved stone trim; 5 stores on first floor; 126 apartments of one and two rooms with kitchenette and bath; Frank V. Newell, Archt., 08 Ave. A, Miami.; Geo. W. Langford Co., Contr., Louisville, Ky., and Miami.

Ky., Bowling Green—Dr. T. O. Helm and T. O. Helm, Jr., plan to erect \$250,000 to \$300,000 hotel at Main and State Sts.; 4 stories; 110 rooms, 7 sample rooms, 3 store rooms, assembly hall to seat 200; Forbes Manufacturing Co., Contr., Hopkinsville.

La., New Orleans—Jos. and Luca Vaccaro, Chas. Leftwich, W. Irving, Mike M. Moss and Harold Newman will alter Grunewald Hotel; install bathrooms, plumbing, etc.; Toledano, Wogan & Bernard, Archts., Title Guarantee Bldg.; O. M. Gwin Construction Co., contr. at \$70,900; A. G. Rose, 500 State St., plumbing at \$40,491; all New Orleans. (Previously noted.)

Miscellaneous.

Fla., Jacksonville—Clubhouse — Riverside Athletic Club will erect building; 65x110 ft.; gymnasium, 45x92 ft.; bowling alleys; swimming pool, 25x60 ft., 4 to 12 ft. deep, finished in tile; Forster & Christopher, Contrs., Jacksonville.

La., Ruston — Orphanage — Louisiana Methodist Orphanage, Brisco Carter, Sec. Bd. of Directors, will erect dormitory; J. W. Smith, Archt., Monroe; C. E. Andrews, Contr., Ruston. (Lately noted.)

Tex., Houston—Market—Montrose Realty Co., J. M. Frost, Jr., Pres., will erect community market, W. Alabama St.; cost \$22,900; 125x75 ft.; H. W. Clark, Contr., Houston.

Schools.

Fla., Sarasota—Board of Public Instruction will erect school; 16 classrooms each to accommodate 40 pupils, auditorium to seat 750; hollow tile, brick, stucco and steel; built-up roof; reinforced concrete stairways, non slip treads, ornamental iron rail; ornamental fire escapes; steel sash and frames; artificial stone work and ornament. Address Thos. R. Martin, Archt.-Contr., Sarasota.

Fla., Tampa—Hillsborough County Board of Public Instruction, J. E. Knight, Supt., will erect annex to George Washington Junior High school; 9 classrooms; Marshall & Jackson, Archts., Lakeland. (Lately noted.)

La., Baker—Baton Rouge Parish School Board, N. B. Brown, Chmn. Bldg. Comm., Baton Rouge, will erect high school; cost \$38,100; 2 stories; 129.8x54.2 ft.; brick; composition roof; Wm. T. Nolan, Archt., Canal Commercial Bldg., New Orleans; Knapp & East, Contrs., Lake Charles; Preston Brasher, Alexandria, plumbing and heating, \$5600. (Lately noted.)

La., Pickering—Vernon Parish School Board, Leesville, will erect 2-story frame school; cost \$24,800; F. W. Steinman & Son, Archts., Beaumont, Tex.; E. A. Underwood, Contr., Leesville.

Md., Baltimore — St. Anne's Catholic Church, Rev. Jos. A. Mallon, Pastor, 528 E. 22nd St., will erect \$150,000 building for

parochial school on Greenmount Ave. near 22nd St.; 57.8x158.6 ft.; 3 stories; first story, stone; stone front with return of 10 ft. on sides, remainder brick; 16 classrooms, assembly hall to seat 1000, several meeting rooms; accommodate 700 pupils; slag roof; Hugh I. Kavanagh, Archt., 913 N. Calvert St.; John J. Moylan, Contr., 538 N. Calvert St., both Baltimore; steam heat, plumbing and electrical work not in general contract; raising present building.

Miss., Tupelo—Lee County Board of Education will erect school at Sherman; election June 4 on \$15,000 bonds; also erect building for Pratt Consolidated School in First Dist.; Jno. F. Milam, Contr., Tupelo.

Mo., Hunnewell—School Board will erect building; cost \$17,014; brick and stone; Martin J. Geise, Archt., Quincy, Ill.; C. A. Lawson, Contr., Monroe City, Mo.; election June 2 on \$3000 bonds to cover heating and ventilation. (Lately noted.)

N. C., Colfax—Guilford County Board of Education, T. R. Foust, Supt., Greensboro, will erect buildings at Colfax, Jonesboro and Sumner townships; total cost \$72,000; 8 classrooms; brick or tile; asbestos shingle roof; metal ceilings; maple floors; Byrum Construction Co., Contr., Oxford. (Lately noted.)

Okla., Ponca City—Board of Education will erect Roosevelt ward school; fireproof; M. T. Keed, Contr., Okmulgee.

Tex., Houston—Board of Education will erect addition to Magnolia Park School; \$33,613; 1 story; 8 rooms; brick; C. Dahl, Contr., Houston.

Va., Bristol—School Board, Roy Bowers, Supt., will erect grammar school on Mary St.; cost \$119,000; 3 stories; 230x90 ft.; brick; built-up roof; concrete foundation; wood floors, corridors, concrete; steel sash and trim; hollow fireproof tile; vacuum steam heat; D. R. Beeson, Archt., Johnson City, Tenn.; Holston Construction Co., Contr., Fred Hayes, heating and plumbing; Cannon Electric Co., electric work; all Bristol, Va. (Lately noted.)

Va., Richmond—St. Benedict Parish, Grove and Belmont Aves., will erect school; \$65,000; 61x82 ft.; 2 stories; brick and concrete; concrete foundation; tile roof; wood floors; steam heat; B. J. Rowlett, Archt., 9th and Main Sts.; B. Pillow, Contr., Real Estate Exchange Bldg., both Richmond.

W. Va., Weirton—Butler Dist. Board of Education, W. D. Johnson, Sec., will erect high school; cost \$176,515; 2 stories; 100 x 150 ft.; reinforced concrete and hollow fireproof tile; concrete foundation; composition roof; hardwood and concrete floors; interior tile; plaster bard; metal doors; wire glass; Peterson & Clarke, Archts., Steubenville Stone Co., Contr.; both Steubenville, Ohio; Steam Electric Co., Wheeling; heating; C. S. Hutton, Weirton, plumbing. (Lately noted.)

Stores.

Ala., Greenville—R. F. Williams will erect business building on W. Commerce St.; contract let.

Ala., Gurley—J. W. Joplin will erect \$12,500 store; 2 stories; Baxter Bros., Contrs., Huntsville.

Fla., St. Petersburg—Harrison Hardware Co. will remodel old Arcade Hotel for department store; Henry J. Capdeville, Contr., Tampa.

La., New Orleans—F. F. Hansell & Bros. will remodel 3-story building at 404-12 Carondelet St. to include store fronts, show cases, steel girders, cast iron columns, metal ceilings, stairways, repairs to floors, repainting, decorating, electric lighting and plumb-

ing; \$12,000; W. T. Nolan, Archt., Canal Commercial Bldg.; Haffner & Taylor, Contrs., both New Orleans. (Lately noted.)

Okla., Tulsa—E. K. Robinett will erect store on S. Main St.; 1 story; 50x75 ft.; A. F. Wasielewski, Contr.

S. C., Greenville—C. O. Allen is erecting building, E. Washington and Brown Sts.; 2 stores on ground floor, offices above; Potter & Shackelford, Contrs., Greenville. (See Buildings Proposed—Bank and Office.)

Tex., Austin—S. D. Burrattee will erect \$10,000 building in East Austin; 1 story; brick; built up roof; concrete floors and foundation; Giesecke & Harris, Archts., Littlefield Bldg.; Jno. R. Bingham, Contr.; J. O. Andrawartha & Co., 105 E. 9th St., plumbing and wiring; all Austin. (Lately noted.)

Tex., Dallas—Higginbotham-Bailey-Logan Co., R. W. Higginbotham, Pres., Lamar and Jackson Sts., will erect addition to building; cost \$300,000; 8 stories; 75x200 ft.; fireproof; reinforced concrete and brick; automatic sprinklers; 5 elevators; heating system, using oil for fuel; Lang & Wittchell, Archts.; Hickey & Montgomery, Contrs., both Dallas. (Lately noted.)

Tex., San Antonio—Frank Liberto will erect \$18,000 store and hotel building on Durango St.; 2 stories; reinforced concrete; Banskach Bros., Contrs., San Antonio.

Tex., San Antonio—Joske Bros. Co. will remodel store; construct hachways, pent house, alter interior, etc.; cost \$10,000; Adams & Adams, Archts.; Shane & Dickey, Contrs., both San Antonio; Otis Elevator Co., contr. to install 3 elevators. (Lately noted.)

Theatres.

Ark., Texarkana—Saenger Amusement Co. will erect \$145,000 theater; fireproof; brick and concrete; stone trim; Emile Weil, Archt., Whitney Central Bldg., New Orleans, La.; Brashears Construction Co., Contr., Shreveport, La., and Texarkana. (Lately noted.)

Mo., Springfield—Theresa Nibler, Mgr., Electric Theater, will remodel and redecorate building; cost \$20,000; Jno. M. Olson, Contr., Springfield.

Mo., Trenton—M. W. Hubbell will remodel Hubbell Theater; cost \$50,000; marble and tile floors in lobby; redecorate auditorium in gold, old rose and blue; install \$15,000 pipe organ; redecorate exterior; etc.; Boler Bros., Contrs.

W. Va., Morgantown—Communizis Bros. plan to erect \$500,000 theater on Iligh St.; Chas. P. Keyser Co., Contr., Bellaire, Ohio.

Warehouses.

N. C., Wilson—Centre Brick Warehouse Co. will erect addition; 75x160 ft.; brick; Wilkins Bros., Contrs., Wilson.

Tex., Dallas—J. J. Lyons, of Lyons-Parsons Co., will erect warehouse at Hord and Carter Sts.; cost \$100,000; 6 stories; 100x100 ft.; fireproof; concrete slab; passenger and freight elevators; J. A. Pitzinger, Archt.; Inge Construction Co., Contr., both Dallas.

Tex., Greenville—Frank Wolfe will erect \$30,000 storage building at Henry and Wright Sts.; \$30,000; contract let.

Tex., Houston—Kent H. Easter Co. will erect 2 additions to warehouse on Live Oak St.; cost \$15,000; reinforced concrete; 100x100 ft. each; A. C. Bernard, Contr., Houston.

Va., Richmond—Tractor & Machine Sales Co. will erect warehouse on the Boulevard near Hermitage Rd.; cost \$28,000; 157.4x66.6 ft.; 2 stories and mezzanine; brick and stucco; R. D. Trimble, Engr.; W. L. Ragland & Son, Contrs., both Richmond.

and concrete; composition roof; wood floors; steam heat; Harry Barton, Archt., Greensboro; bids opened about July 10.

N. C., Kinston—Wayne Mitchell will erect building on Queen St.; 20x110 ft.

Okla., Tulsa—Henry Brockman will erect 3-story business building at 10th and 11th Sts.

Tenn., Memphis — Jacob H. Foltz, 169 Adams Ave., plans to erect 2 stores.

Tex., Austin—T. H. Williams & Co. will remodel store at 5th and Congress Sts.; \$15,000.

Tex., Beaumont—D. A. Schulte, Inc., New York, (local representative, Geo. A. Young) will remodel Laundry Building at Pearl and Fannin Sts.; cost \$10,000 to \$15,000.

W. Va., Charleston—Wm. Davis will erect \$12,000 business building, 602 Court St.; 40 x 60 ft.; 2 stories; brick.

W. Va., Grafton—Wm. Archdeacon, Jack Riffe and Dr. D. C. Peck will erect \$20,000 building; 2 stories; brick.

Theatres.

Fla., Bartow—Hugh Wear will erect moving picture theater and office building on E. Main St.; cost \$50,000; 75x100 ft.; seat 800.
La., Shreveport—Ehrlich Bros. are reported to erect \$500,000 theater at Louisiana and Crockett Sts. to replace Grand Opera House; seating capacity 2500; Emile Weil, Archt., Whitney Central Bldg., New Orleans.

Warehouses.

Mo., Jefferson City—Cole County Farmers Co-operative Co., Richard Mueller, Daniel Mueller, Jno. Wolken and others will erect warehouse and elevator.

N. C., Kinston—Luther P. Tapp will erect tobacco warehouse; 250 ft. x 250 ft.; steel and iron.

N. C., New Bern—Planters Tobacco Co. will erect warehouse; cost \$35,000.

N. C., Oxford—Oxford Storage and Inspection Co., incorporated with \$100,000 by J. F. Meadows, I. N. Davis, J. F. White and J. R. Wood; will erect warehouse.

Tenn., Chattanooga—James Supply Co. will erect warehouse on E. 11th St.; R. H. Hunt, Archt., Chattanooga.

BUILDING CONTRACTS AWARDED

Association and Fraternal.

Ala., Fairfield—Fairfield Masonic Lodge will erect \$30,000 addition, Gary Ave.; 2 stories; 50x150 ft.; remodel second floor of present building; Holley & Davis, Contrs., Fairfield.

Fla., St. Petersburg—Elks' Lodge, will erect \$97,822 clubhouse, 2nd Ave. and 14th St., South, to be first unit of \$1,000,000 five-story structure; brick and stucco; 100x72 ft.; 2 stories and basement; pine and marbleoid floors; reinforced concrete foundation; Barrett roof; Geo. Feltham, Archt.; Chas. Dubois, Contr.; Joe Shoemaker, heating and plumbing; all St. Petersburg; excavating. (Lately noted.)

S. C., Columbia—J. W. McCormick will erect \$65,000 apartment house, Marion and Senate Sts.; 3 stories and basement; 12 suites of 4 and 5 rooms and bath; 42x127 ft.; reinforced concrete, hollow tile and brick; fireproof; reinforced concrete and iron stairways; oak floors; walnut doors; vapor steam heating plant; built-in tubs and tile floors in bathrooms; J. B. Urquhart, Archt.; W. B. Summerset, Contr.; both Columbia. (Previously noted.)

Tex., Waco—Dr. Lula Pace will erect \$17,000 apartment house, 8th and Speight Sts.; 2 stories; H. J. Ainsworth, Contr., Waco.

Bank and Office.

Fla., Miami Beach—Miami Beach Improvement Co. will erect 2-story concrete office building, Washington Ave. and Lincoln Rd.; 30x48 ft.; Kiehnel & Elliott, Archts.; D. Richard Mead, Contr.; both Miami.

Md., Pocomoke City—City National Bank will erect building to replace burned structure; Owens & Sisco, Archts., Continental Bldg., Baltimore; Mr. Morse, Contr., Salisbury.

S. C., Batesburg—First National Bank will erect addition; Lafaye & Lafaye, Archts.; R. D. McClure, Contr.; both Columbia. (Lately noted.)

S. C., Greenville—C. O. Allen will erect 3-story fireproof building; 60x116 ft.; J. E. Sirmine & Co., Archts., Greenville; plans ready in about 4 weeks; will ask bids as soon as plans completed; building to be finished by Feb. 1; is erecting building, E. Washington

and Brown Sts., for stores and offices; Potter & Shackelford, Contrs., Greenville.

Tenn., Memphis—Robt. York, York Lbr. & Mfg. Co., will erect 5-story medical office building, Madison Ave. and Manassas St.; 4 entrances; elevators; parking space in rear; Harker & Cairns, Archts., Seimitar Bldg.; Blair Construction Co., Contr.; both Memphis.

Tex., Cameron—Cameron State Bank will remodel 1-story brick building; 33x75 ft.; Paul G. Silber & Co., Archts., 331 Bedell Bldg., San Antonio; S. B. Swigert, Waco, contr., at \$11,450. (Contractor lately incorrectly noted.)

Churches.

Va., Richmond—St. Paul's Episcopal church, 815 E. Grace St., will erect \$83,800 parish house; 4 stories; 48x131x29 ft.; brick; concrete foundation; concrete, pine and hardwood floors; Nelcode and slag roof; steam heat; hollow fireproof tile; Douglas D. Ellington, Archt., Wabash Bldg., Pittsburgh, Pa.; J. C. Beazley Co., Contr., Main St., Richmond. (Previously noted.)

Va., Richmond—St. Paul's P. E. Church will erect \$125,000 parish house, 9th and Grace Sts.; 2 stories and basement; Sunday school rooms, kitchen facilities, etc.; Douglas Ellington, Archt.; J. C. Beazley & Co., Contr.; both Richmond. (Previously noted.)

City and County.

Md., Baltimore—Fire Station—City, Mayor Howard W. Jackson, Pres., Board of Awards, will erect \$42,379 fire engine house, Eastern Ave., west of 26th St.; 2 stories; brick; Robt. L. Harris, Archt., 25 W. Saratoga St.; General Construction Co., Contr.

Dwellings.

Fla., Jacksonville—Mrs. Jos. R. Parrott will erect \$35,500 residence, St. John's St., near Donald St.; 2 stories; tile and stucco; Leadlay Ogden, Contr., Jacksonville.

Fla., Miami Beach—Fredk. J. Osius, Miami, will erect 2-story Spanish type dwelling, Lincoln Rd. and Washington Ave.; John B. Orr, Contr., Miami.

N. C., Greensboro—Wm. Y. Preyer, Sec. Treas., Vick Chemical Co., will erect \$65,000 residence, Sunset Drive, Irving Park; tile building blocks, stucco and limestone; Chas. Barton Keen, Archt., 1218 Chestnut St., Philadelphia, Pa.; C. J. McMichael, Contr., Greensboro.

S. C., Batesburg—C. R. Dreher will erect brick residence; Lafaye & Lafaye, Archts.; R. D. McClure, Contr.; both Columbia. (Lately noted.)

Tenn., Memphis—Chas. Norfleet will erect \$18,500 residence, 1896 Overton Park; 8 rooms; frame and stucco; J. H. Moselage, Contr.

Tenn., Memphis—Dr. Frank J. Hall will erect \$13,000 Colonial residence, 1183 East Parkway; 2 stories; brick veneer; 2 baths; sleeping porch; Anker F. Hansen, Archt.; J. A. Smith, Contr. (Lately noted.)

Tex., Austin — Kurt Schmides will erect \$20,838 residence, Baylor St.; 2 stories; brick veneer; Giesecke & Harris, Archts., 406 Littlefield Bldg., Brydson Bros., Contrs., 1612 Guadalupe St.; J. A. Buas & Son, 502 Lavaca St., hot air heat, \$630; Harper & Linscomb, 210 W. 13th St., plumbing and electrical work, \$2550; all Austin. (Lately noted.)

Tex., Cuero—Mrs. Otto Buchell will remodel brick residence; Alfred Giles Co., Archts., San Antonio; H. H. Mayben, contr. at \$12,675; both San Antonio.

Tex., Houston — Craig Belk, Chronicle Bldg., is erecting \$17,000 residence; stucco on metal lath; 2 stories; hardwood floors; concrete foundation; shingle roof; interior tile; ventilators; E. H. Stubbe, Archt.; W. A. Lang, Contr.; Lee Rogerson, heating and plumbing; all Houston.

Va., Richmond—A. H. Herman, Va. P. & P. Bldg., will erect \$10,000 residence, 3716 Brookside Ave.; stucco; 2 stories; 32x28x27 ft.; concrete foundation; slate roof; furnace heat; wood floors; plans by owner; Richmond Construction Co., Contr., 927 Hull St., Richmond.

Va., Richmond—H. B. Melton, 5 N. Elm St., will erect brick residence, 33 W. Franklin St.; 2 stories; 22x34x30 ft.; brick foundation; tin roof; wood floors; hot water heat; plans by owner; W. S. Quarles, Contr., 2612 Hanover Ave.

W. Va., Charleston—Arthur Holz will erect \$15,000 residence, Edgewood Drive; Colonial type; brick and hollow tile; tile roof; 7 rooms; Fred Crowther, Archt., 312 Morrison St., Charleston; W. H. Browder & Son, Contrs., St. Albans.

W. Va., Charleston—John Ray, Kanawha Valley Bank Bldg., will erect \$16,000 residence and garage, off Linden Ave., South Hills; 52x28 ft.; 2 stories; oak floors; concrete foundation; Mohawk asbestos slate roof; R. O. Newcomb, Archt.-Contr., 201 Kanawha Bank & Trust Bldg.; A. E. Lee, plumbing; both Charleston. (Lately noted.)

Hospitals Sanitariums, Etc.

Va., University (Branch of Charlottesville)—University of Virginia will erect \$116,000 orthopedic and obstetrical wing to conform to Steele wing; 4 stories; 50x80 ft.; concrete, hardwood and metal lumber floors; concrete foundation; slate roof; metal doors; wire glass; has central hot water heating plant; Fiske Kimball, Archt., University; W. P. Thurston Co., Contr., Richmond; Sensibaugh Elec. Co., Charlottesville, all electrical work, conduit system; Westbrook Elec. Co., Danville, 1 automatic hospital elevator; plumbing, consisting of about 60 hospital type fixtures, not awarded. (Lately noted.)

Hotels.

Fla., Miami—J. H. Bowlin will erect \$30,000 hotel at 406 Collins Ave.; 2 stories; 30 guest rooms and 22 baths; remodel residence for dining room, kitchen and storage room and connect to hotel by pergola; J. C. Gault, Archt.; J. S. Shaver, Contr., both Miami.

Fla., Miami—Mrs. E. C. McAllister will erect \$500,000 apartment hotel at 227-35 E. Flagler St.; Moorish style architecture; 9 stories; 100x160 ft.; reinforced concrete; marble tile floors; carved stone trim; 5 stores on first floor; 126 apartments of one and two rooms with kitchenette and bath; Frank V. Newell, Archt., 08 Ave. A, Miami; Geo. W. Langford Co., Contr., Louisville, Ky., and Miami.

Ky., Bowling Green—Dr. T. O. Helm and T. O. Helm, Jr., plan to erect \$250,000 to \$300,000 hotel at Main and State Sts.; 4 stories; 110 rooms, 7 sample rooms, 3 store rooms, assembly hall to seat 200; Forbes Manufacturing Co., Contr., Hopkinsville.

La., New Orleans—Jos. and Lucca Vaccaro, Chas. Leftwich, W. Irving, Mike M. Moss and Harold Newman will alter Grunewald Hotel; install bathrooms, plumbing, etc.; Toledano, Wogan & Bernard, Archts., Title Guarantee Bldg.; O. M. Gwin Construction Co., contr. at \$70,900; A. G. Rose, 500 State St., plumbing at \$40,491; all New Orleans. (Previously noted.)

Miscellaneous.

Fla., Jacksonville—Clubhouse — Riverside Athletic Club will erect building; 65x110 ft.; gymnasium, 45x92 ft.; bowling alleys; swimming pool, 25x60 ft., 4 to 12 ft. deep, finished in tile; Forster & Christopher, Contrs., Jacksonville.

La., Ruston — Orphanage — Louisiana Methodist Orphanage, Brisco Carter, Sec. Bd. of Directors, will erect dormitory; J. W. Smith, Archt., Monroe; C. E. Andrews, Contr., Ruston. (Lately noted.)

Tex., Houston—Market—Montrose Realty Co., J. M. Frost, Jr., Pres., will erect community market, W. Alabama St.; cost \$22,900; 125x75 ft.; H. W. Clark, Contr., Houston.

Schools.

Fla., Sarasota—Board of Public Instruction will erect school; 16 classrooms each to accommodate 40 pupils, auditorium to seat 750; hollow tile, brick, stucco and steel; built-up roof; reinforced concrete stairways, non slip treads, ornamental iron rail; ornamental fire escapes; steel sash and frames; artificial stone work and ornament. Address Thos. R. Martin, Archt.-Contr., Sarasota.

Fla., Tampa—Hillsborough County Board of Public Instruction, J. E. Knight, Supt., will erect annex to George Washington Junior High school; 9 classrooms; Marshall & Jackson, Archts., Lakeland. (Lately noted.)

La., Baker—Baton Rouge Parish School Board, N. B. Brown, Chmn. Bldg. Comm., Baton Rouge, will erect high school; cost \$38,100; 2 stories; 129.8x54.2 ft.; brick; composition roof; Wm. T. Nolan, Archt., Canal Commercial Bldg., New Orleans; Knapp & East, Contrs., Lake Charles; Preston Brasher, Alexandria, plumbing and heating, \$5600. (Lately noted.)

La., Pickering—Vernon Parish School Board, Leesville, will erect 2-story frame school; cost \$24,800; F. W. Steinman & Son, Archts., Beaumont, Tex.; E. A. Underwood, Contr., Leesville.

Md., Baltimore — St. Anne's Catholic Church, Rev. Jos. A. Mallon, Pastor, 528 E. 22nd St., will erect \$150,000 building for

parochial school on Greenmount Ave. near 22nd St.; 57.8x158.6 ft.; 3 stories; first story, stone; stone front with return of 10 ft. on sides, remainder brick; 16 classrooms, assembly hall to seat 1000, several meeting rooms; accommodate 700 pupils; slag roof; Hugh I. Kavanagh, Archt., 913 N. Calvert St.; John J. Moylan, Contr., 538 N. Calvert St., both Baltimore; steam heat, plumbing and electrical work not in general contract; razing present building.

Miss., Tupelo—Lee County Board of Education will erect school at Sherman; election June 4 on \$15,000 bonds; also erect building for Pratt Consolidated School in First Dist.; Jno. F. Milam, Contr., Tupelo.

Mo., Hunnewell—School Board will erect building; cost \$17,014; brick and stone; Martin J. Geise, Archt., Quincy, Ill.; C. A. Lawson, Contr., Monroe City, Mo.; election June 2 on \$3000 bonds to cover heating and ventilation. (Lately noted.)

N. C., Colfax—Guilford County Board of Education, T. R. Foust, Supt., Greensboro, will erect buildings at Colfax, Jonesboro and Sumner townships; total cost \$72,000; 8 classrooms; brick or tile; asbestos shingle roof; metal ceilings; maple floors; Byrum Construction Co., Contr., Oxford. (Lately noted.)

Okla., Ponca City—Board of Education will erect Roosevelt ward school; fireproof; M. T. Keed, Contr., Okmulgee.

Tex., Houston—Board of Education will erect addition to Magnolia Park School; \$33,613; 1 story; 8 rooms; brick; C. Dahl, Contr., Houston.

Va., Bristol—School Board, Roy Bowers, Supt., will erect grammar school on Mary St.; cost \$119,000; 3 stories; 230x90 ft.; brick; built-up roof; concrete foundation; wood floors, corridors, concrete; steel sash and trim; hollow fireproof tile; vacuum steam heat; D. R. Beeson, Archt., Johnson City, Tenn.; Holston Construction Co., Contr., Fred Hayes, heating and plumbing; Cannon Electric Co., electric work; all Bristol, Va. (Lately noted.)

Va., Richmond—St. Benedict Parish, Grove and Belmont Aves., will erect school; \$65,000; 61x82 ft.; 2 stories; brick and concrete; concrete foundation; tile roof; wood floors; steam heat; B. J. Rowlett, Archt., 9th and Main Sts.; B. Pillow, Contr., Real Estate Exchange Bldg., both Richmond.

W. Va., Weirton—Butler Dist. Board of Education, W. D. Johnson, Sec., will erect high school; cost \$176,515; 2 stories; 100 x 150 ft.; reinforced concrete and hollow fireproof tile; concrete foundation; composition roof; hardwood and concrete floors; interior tile; plaster hard; metal doors; wire glass; Peterson & Clarke, Archts.; Steubenville Stone Co., Contr.; both Steubenville, Ohio; Steam Electric Co., Wheeling; heating; C. S. Hutton, Weirton, plumbing. (Lately noted.)

Stores.

Ala., Greenville—R. F. Williams will erect business building on W. Commerce St.; contract let.

Ala., Gurley—J. W. Joplin will erect \$12,500 store; 2 stories; Baxter Bros., Contrs., Huntsville.

Fla., St. Petersburg—Harrison Hardware Co. will remodel old Arcade Hotel for department store; Henry J. Capdeville, Contr., Tampa.

La., New Orleans—F. F. Hansell & Bros. will remodel 3-story building at 404-12 Carondelet St. to include store fronts, show cases, steel girders, cast iron columns, metal ceilings, stairways, repairs to floors, repainting, decorating, electric lighting and plumb-

ing; \$12,000; W. T. Nolan, Archt., Canal Commercial Bldg.; Haffner & Taylor, Contrs., both New Orleans. (Lately noted.)

Okla., Tulsa—E. K. Robinett will erect store on S. Main St.; 1 story; 50x75 ft.; A. F. Wasielewski, Contr.

S. C., Greenville—C. O. Allen is erecting building, E. Washington and Brown Sts.; 2 stores on ground floor, offices above; Potter & Shackelford, Contrs., Greenville. (See Buildings Proposed—Bank and Office.)

Tex., Austin—S. D. Burrattee will erect \$10,000 building in East Austin; 1 story; brick; built up roof; concrete floors and foundation; Giesecke & Harris, Archts., Littlefield Bldg.; Jno. R. Bingham, Contr.; J. O. Andrawartha & Co., 105 E. 9th St., plumbing and wiring; all Austin. (Lately noted.)

Tex., Dallas—Higginbotham-Bailey-Logan Co., R. W. Higginbotham, Pres., Lamar and Jackson Sts., will erect addition to building; cost \$300,000; 8 stories; 75x200 ft.; fireproof; reinforced concrete and brick; automatic sprinklers; 5 elevators; heating system, using oil for fuel; Lang & Wittichell, Archts.; Hickey & Montgomery, Contrs., both Dallas. (Lately noted.)

Tex., San Antonio—Frank Liberto will erect \$18,000 store and hotel building on Durango St.; 2 stories; reinforced concrete; Banspach Bros., Contrs., San Antonio.

Tex., San Antonio—Joske Bros. Co. will remodel store; construct hatchways, pent house, alter interior, etc.; cost \$10,000; Adams & Adams, Archts.; Shane & Dickey, Contrs., both San Antonio; Otis Elevator Co., contr. to install 3 elevators. (Lately noted.)

Theatres.

Ark., Texarkana—Saenger Amusement Co. will erect \$145,000 theater; fireproof; brick and concrete; stone trim; Emile Weil, Archt., Whitney Central Bldg., New Orleans, La.; Brashears Construction Co., Contr., Shreveport, La., and Texarkana. (Lately noted.)

Mo., Springfield—Theresa Nibler, Mgr., Electric Theater, will remodel and redecorate building; cost \$20,000; Jno. M. Olson, Contr., Springfield.

Mo., Trenton—M. W. Hubbell will remodel Hubbell Theater; cost \$50,000; marble and tile floors in lobby; redecorate auditorium in gold, old rose and blue; install \$15,000 pipe organ; redecorate exterior; etc.; Boler Bros., Contrs.

W. Va., Morgantown—Communizls Bros. plan to erect \$500,000 theater on High St.; Chas. P. Keyser Co., Contr., Bellaire, Ohio.

Warehouses.

N. C., Wilson—Centre Brick Warehouse Co. will erect addition; 75x160 ft.; brick; Wilkins Bros., Contrs., Wilson.

Tex., Dallas—J. J. Lyons, of Lyons-Parsons Co., will erect warehouse at Hord and Carter Sts.; cost \$100,000; 6 stories; 100x100 ft.; fireproof; concrete slab; passenger and freight elevators; J. A. Pitzinger, Archt.; Inge Construction Co., Contr., both Dallas.

Tex., Greenville—Frank Wolfe will erect \$30,000 storage building at Henry and Wright Sts.; \$30,000; contract let.

Tex., Houston—Kent H. Easter Co. will erect 2 additions to warehouse on Live Oak St.; cost \$15,000; reinforced concrete; 100x100 ft. each; A. C. Bernard, Contr., Houston.

Va., Richmond—Tractor & Machine Sales Co. will erect warehouse on the Boulevard near Hermitage Rd.; cost \$28,000; 157.4x66.6 ft.; 2 stories and mezzanine; brick and stucco; R. D. Trimble, Engr.; W. L. Ragland & Son, Contrs., both Richmond.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Aluminum Straight Edges.—Nelson Hardware Co., 17 Campbell Ave., East, Roanoke, Va.—Aluminum straight edges running from short lengths up to as long as 20 ft.

Apartment Equipment.—A. L. Womack, 650 Pennsylvania Ave., Bristol, Tenn.—Equipment for 12-suite apartment house.

Badges (Chauffeurs).—See Plates, etc. (Motor Vehicles).

Barges (Oil).—U. S. Engineer Office, Cincinnati, Ohio—Bids until June 22 to construct and deliver two 100 bbl. steel oil barges, 100x30x6-ft.

Boilers.—A. Y. Aydelott, 2330 Ave. G, Birmingham, Ala.—Vertical steam boilers.

Boilers (Marine).—Third Mississippi River Dist., Box 404, Vicksburg, Miss.—Bids until June 15 to furnish 8 marine boilers.

Boilers (Range).—See Miscellaneous Supplies.

Boilers, Stokers, etc.—Curators of the University of Missouri, Edward E. Brown, Business Mgr., Columbia, Mo.—Bids until June 8 to furnish and install horizontal water tube boilers, chain grate stokers, traveling crane and grab bucket, and coal bunkers with weighing larry.

Boring Machine.—See Machine Shop Equipment.

Brick.—See Building Material.

Brick (Common and Faced).—See Water Works Improvements.

Bridge Construction.—State Highway Department, Columbia, S. C.—Details under Construction News—Bridges, Culverts, Viaducts.

Bridge Construction.—City of New Orleans, La. Details under Construction News—Road and Street Construction.

Bridge Construction.—Louisiana Highway Comsn., Baton Rouge, La. Details under Construction News—Bridges, Culverts, Viaducts.

Bronze Bars.—See Miscellaneous Supplies.

Brushes and Sickles.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids opened June 7 to furnish 1000 calimine brushes and 500 sickles; delivery Philadelphia; Sch. 492.

Building Materials.—J. A. Hughes, Ashland, W. Va.—Building materials including tile, brick and lumber.

Building Material.—J. A. Sumpter, Poorfork, Ky.—Building material for 2 or 3 stores; 50x90 ft.

Building Material.—A. L. Womack, 650 Pennsylvania Ave., Bristol, Tenn.—Building material for 12-suite, brick apartment house.

Burners (Oil).—Krippendorf-Tuttle White Cliffs Products Co., White Cliffs, Ark.—Oil burners and equipment for boilers, dryers and kiln firing.

Cable.—M. M. Brown, Box 355, Florence, S. C.—Cable for stretching across swimming pools.

Cable (Armored).—See Miscellaneous Supplies.

Caboose.—Pennsylvania Equipment Co., (Mchy. Dealers) Norwood Station, Pa.—Second-hand caboose, about 38-ft. long over all outside; for Southern delivery.

Canning Machinery.—Yancey M. May, 4th

Floor National Bank, Greenwood, S. C.—Data and prices on canning machinery.

Canning Plant.—Mountain Industrial Institute, S. R. Hurley, Chrmn. Board of Trustees, Grundy, Va.—Canning plant equipment.

Canoes.—M. M. Brown, Box 355, Florence, S. C.—To purchase about 10 canoes.

Cement.—See Paving Materials.

Cement (Portland).—See Material for Electrical Conduit.

Chair Machinery.—I. P. Davis, Secy., Warsaw, N. C.—Data and prices on new or second-hand machinery for the manufacture of cheap grade chairs.

Coal Bunkers.—See Boilers, Stokers, etc.

Compressor (Air).—Calhoun Machinery Exchange, (Mchy. Dealers), City Hall Bldg., El Reno, Okla.—14x16-in. belt-driven air compressor.

Compressors (Air).—A. Y. Aydelott, 2330 Ave. G, Birmingham, Ala.—Air compressors.

Concrete (Reinforced).—See Water Works Improvements.

Copper Ribbon.—See Miscellaneous Supplies.

Cotton Mill Machinery.—W. C. Korff, 611 Brady Bldg., San Antonio, Tex.—Data and prices on cotton mill machinery.

Crane and Grab Bucket.—See Boilers, Stokers, etc.

Crushers, Pulverizers, etc.—Krippendorf-Tuttle White Cliffs Products Co., White Cliffs, Ark.—Single roll and disk crushers, also pulverizers for 300 mesh product.

Derricks.—See Water Works Improvements.

Dikes.—Board of Public Service, Room 208, City Hall, St. Louis, Mo.—Bids until June 12 to furnish all materials, floating plant, equipment, etc., to construct 8 hurdle dikes extending into Missouri river from St. Charles County side, etc., and to build 2-story frame office building at Howard Bend; plans with Water Comsn., Room 312, City Hall, St. Louis.

Dredging Equipment.—Riddle Engineering Co., Room 705 Guaranty Bldg., West Palm Beach, Fla.—Data and prices on grab bucket dredge, floating type, steel hull.

Drills.—See Miscellaneous Supplies.

Drills (Multiple).—See Metal Working Equipment.

Drill Press.—See Machine Shop Equipment.

Dyeing and Bleaching Equipment.—See Textile Machinery.

Eaves, Troughs and Hangers.—See Roofing (Steel and Rubber), etc.

Electrical Equipment.—See Lighting System.

Electrical Equipment.—E. C. Bridges, Mayor, Heath Springs, S. C.—In market for necessary material to build 11 miles of transmission line of 13,200 volts.

Electrical Wiring.—Louisiana State University Bldg. Comm., Dalton Raymond, Chmn., Baton Rouge, La.—Bids until June 15 for electric light and power wiring for Boyd Memorial Hall and Law Building; 100x50 and 103x54 ft.; 1 and 2 stories; Theo. C. Link, Archt., fourth floor Capitol Bldg., Baton Rouge.

Engine (Gasoline).—M. E. Fidler, Route 1, Box 256½, Miami, Fla.—2 H. P. gasoline engine.

Flour Mill Machinery.—B. F. Smith, Celina, Texas—Bids opened in July for flour mill machinery, daily capacity 150 bbls.

Gears (Sheet Metal).—See Metal Working Machinery.

Gravel.—See Paving Materials.

Gravel.—Louisiana Highway Comsn., J. M. Fourmy, Engr., Reymond Bldg., Baton Rouge, La., will receive bids until June 19 to furnish 17,596 cu. yds. sand clay gravel, or 5868 cu. yds. washed gravel, and 11,728 cu. yds. sand clay gravel, or 13,197 cu. yds. washed gravel to surface Abbeville-New Iberia Highway; Vermilion Parish, State Proj. No. 328; plans, etc., on file.

Grinder (Tool).—See Machine Shop Equipment.

Handles (File).—See Miscellaneous Supplies.

Hydrants.—See Pipe (Water), etc.

Ice Plant.—McNeill Milling Co., Fayetteville, N. C.—Prices and data on medium size plant for manufacture of ice.

Iron (Galvanized).—See Roofing (Steel and Rubber), etc.

Jetty Construction.—For proposal details see Construction News—Miscellaneous Construction.

Knitting Machines.—C. S. Brown, Dayton, Tex.—To correspond with manufacturers of knitting machines.

Lath and Stave Machinery.—Richard T. Moore, Culverson, Ga.—Prices and cuts of lath and stave machinery.

Lathe.—See Machine Shop Equipment.

Lathes.—See Metal Working Machinery.

Lathes (Turret).—See Metal Working Equipment.

Lighting System.—M. M. Brown, Box 355, Florence, S. C.—Lighting system carrying 50 or 60 lights of about 30 candle power.

Lumber.—See Building Material.

Lumber.—Supt. of Lighthouses, Baltimore, Md.—Bids until June 20 for 66,112 ft. B. M. L. L. yellow pine lumber, merchantable, rough, impregnated with creosote oil.

Machine Shop Equipment.—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—To purchase 16-in. shaper; 24-in. planer; 48-in. x 6-ft. lathe with all attachments; No. 2 Brown & Sharp Universal milling machine; Universal milling machine; Universal tool grinder; upright drill press; horizontal boring machine; 2½-in. flanged steam separator for 125 lbs. pressure.

Manholes.—See Material for Electrical Conduit.

Material for Electrical Conduit.—City Comsn., E. P. Owens, Jr., Sec., Jacksonville, Fla.—Bids until June 14 for the following: 90 cast iron manhole frames and covers, 1650 cu. yds. of crushed stone; 725 cu. yds. of sand; 2800 bbls. Portland cement; 100,000 lin. ft. of ½-in. sq. deformed steel reinforcing bars; f. o. b. Jacksonville.

Metal Working Equipment.—Lee J. Duncan, 441 Manchester Ave., St. Louis, Mo.—Metal working equipment including punch presses, turret lathes, screw machines, milling machines, shapers, multiple drills, etc.

Metal Working Machinery.—M. E. Fidler, Route 1, Box 256½, Miami, Fla.—Metal working machinery, including dies, sheet metal gears, metal stamps, lathes, milling machines.

Meters.—See Utilities Equipment (Electric).

Milling Machines.—See Metal Working Machinery.

Mills (Tube and Pebble).—Krippendorf-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Tuttle White Cliffs Products Co., White Cliffs, Ark.—Tube or pebble mills.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, Gen. Purchasing officer, Washington, D. C.—Bids until June 18 to furnish bronze bars, tool steel, steel welding wire, copper ribbon, armored cable, fans, cable end bells, bolts, drills, range boilers, water heaters, ball cocks, wire cloth, asbestos, rubber and flax packing, leather, rubber gloves, copper tacks, file handles, castors, locks, monkey wrenches, duster brushes, pencil sharpeners, cocoa fibre mats and scythe stones. Blank forms and information (Circular 2327) on application to offices of Panama Canal; Asst. Pur. Agt., Fort Mason, San Francisco, Cal.

Motor.—See Utilities Equipment (Electric).

Meters (Water).—Liberty Light & Water Co., Roanoke, Va.—Prices on water meters.

Nails.—Roofing (Steel and Rubber), etc.

Nickle Plating Equipment.—L. B. Taaffe, Winter Haven, Fla.—Data and prices on equipment for small nickle plating plant.

Packing (Asbestos, Rubber and Flax).—See Miscellaneous Supplies.

Painting and Plastering.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until June 14 for painting and plastering in U. S. Post Office at Moultrie, Ga., and until June 15 for painting and plastering U. S. Post Offices at Iock Haven, Pa. and Logan, Ohio.

Painting and Plastering.—Treasury Dept., Supvg. Archt.'s Office, Washington D. C.—Bids until June 18 for painting and plastering the following U. S. Post Offices at Maquoketa, Iowa, and Lancaster, Ky.; bids until June 19 for post offices at St. Peter, Minn., and Rogers, Ark.; bids until June 20 for post offices at Owego, N. Y., North Tpeka, Kan. and Vancouver, Wash.

Paving.—City of Selma, Ala. Details under Construction News—Road and Street Construction.

Paving.—Board of Awards, Baltimore, Md. Details under Construction News—Road and Street Construction.

Paving.—City of Clifton Forge, Va.—Details under Construction News—Road and Street Construction.

Paving.—City of Atlanta, Ga.—Details under Construction News—Road and Street Construction.

Paving.—City Clk. of Sedalia, Mo.—Details under Construction News—Road and Street Construction.

Paving and Sewer Construction.—City of Elizabethtown, Tenn. Details under Construction News—Road and Street Construction.

Paving and Sewer Construction.—City of Thomasville, Ga. Details under Construction News—Road and Street Construction.

Paving Materials.—Wm. H. Bell, Mayor, West Point, Va.—Prices on paving materials, including cement, sand, gravel.

Paving, Water and Sewer Construction.—Town of Norwood, N. C. Details under Construction News—Road and Street Construction.

Piling.—See Water Works Improvements.

Pipe (Cast Iron).—Capital Lumber Co., 719 Southern Trust Bldg., Little Rock, Ark.—New or second-hand bell and spigot cast iron pipe.

Pipe (Cast Iron and Special).—See Water Works Improvements.

Pipe (Steel), etc.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until June 11 to furnish 5500 ft. of steel pipe and 20 ells, delivery Naval Operating Base,

Hampton Roads. (Sewells Point), Va.; Sch. 498.

Pipe (Water), Etc.—E. C. Bridges, Mayor of Heath Springs, S. C.—In market for 2 mi. 6 inch cast iron pipe, 400 yds. of 8 inch cast iron pipe, 35 hydrants.

Pipe Fittings.—See Water Works Improvements.

Planer.—See Machine Shop Equipment.

Plates, etc. (Motor Vehicle).—State Highway Commn., Austin, Tex.—Bids until June 20 for 300,000prs. of motor vehicle plates; 12,000 prs. dealers plates; 700,000 motor vehicle seals; 100,000 commercial motor vehicle seals; 10,000 motor cycle seals; 20,000 chauffeur's badges.

Presses (Punch).—See Metal Working Equipment.

Printing Press.—J. L. Meeks, Mgr., Times-News Printing Co., Gadsden, Ala.—Printing press.

Pulverizers.—See Crushers, Pulverizers, etc.

Pump.—Fort Worth, Texas—Details under Construction News—Water Works.

Pump (Booster and Impeller).—See Utilities Equipment (Electric).

Punch.—Chattanooga Wheelbarrow Co., 14th and Belt R. R., Chattanooga, Tenn.—Small punch, 14x15-in. throat.

Rails (Relaying).—Taylor-Parker Co., Water St. and Commerce Place, Norfolk, Va.—Prices f. o. b. cars on about 2 mi. of 25 or 30 lbs. good relaying rails.

Reservoir.—See Utilities Equipment (Electric).

Road Construction.—State Highway Commission, Frankfort, Ky., will build 3 roads. Details under Construction News—Road and Street Construction.

Road Construction.—Washington County, Brenham, Tex., will build 2 roads. Details under Construction News—Road and Street Construction.

Road Construction.—State Dept. of Highways and Public Works, Nashville, Tenn., will build 8 roads. Details under Construction News—Road and Street Construction.

Road Construction.—Gonzales County, Gonzales, Tex. Details under Construction News—Road and Street Construction.

Road Construction.—Louisiana Highway Comm., Baton Rouge, La., will build 2 sections of road. Details under Construction News—Road and Street Construction.

Road Construction.—Louisiana Highway Comm., Baton Rouge, La. Details under Construction News—Road and Street Construction.

Road Construction.—Fayette County Court, Fayetteville, W. Va., will improve 4 roads. Details under Construction News—Road and Street Construction.

Road Construction.—Tarrant County, Fort Worth, Tex. Details under Construction News—Road and Street Construction.

Road Construction.—Orange County, Orange, Tex. Details under Construction News—Road and Street Construction.

Road and Bridge Construction.—State Highway Dept., Montgomery, Ala., will build 3 roads. Details under Construction News—Road and Street Construction.

Road Construction.—Charlotte County Board of Supvrs., Charlotte Courthouse, Va., will build 2 roads. For full details see Construction News—Road and Street Construction.

Road Construction.—Orangeburg County Highway Comm., Orangeburg, S. C. Details under Construction News—Road and Street Construction.

Road Construction.—State Roads Comm., Baltimore, Md., will build 5 roads. Details under Construction News—Road and Street Construction.

Rollers and Hangers (Map).—Dept. of the Interior, F. M. Goodwin, Asst. Sec., Washington, D. C.—Bids until June 20 to furnish 11,850 sets of rollers and hangers for use in mounting the General Land Office map of the U. S. for 1923.

Roofing (Steel and Rubber), etc.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids opened June 8 to furnish 1000 sheets of corrugated, galvanized steel roofing, 28 gauge; 30 sheets of galvanized iron, 24 gauge; 1000 ft. galvanized eaves trough, 26 gauge; 200 eave trough hangers, 26 gauge; 500 lbs. galvanized iron roofing nails; 100 lbs. lead washers for nails; 500 rolls prepared rubber roofing, 2 ply; and 200 lbs. roofing nails; delivery Sewell's Point, Va.; Sch. 494.

Sand.—See Paving Materials.

Saw Mill.—Duncan Machinery Co. (Mchy. Dealers), Box 265, Knoxville, Tenn.—Jobbers prices on 8 ft. left hand, rebuilt or used band saw mill, 16 ft. carriage, 10-in. steam feed.

Schools (Portable).—Board of Awards, Mayor Howard W. Jackson, Pres., City Hall, Baltimore, Md.—Bids in duplicate until June 6 at office City Register, City Hall, for furnishing 7 portable schools; plans and specifications at office Board of School Commissioners, Madison and Lafayette Aves.

Screw Machines.—See Metal Working Equipment.

Screws, Burs, etc.—C. F. Sullivan, Sheffield, Iowa.—To purchase in quantities 4x5-16 in. lag screws without heads, to have lag end threaded with regular lag threads; rest of screw to be threaded with or without standard thread, quote prices both ways; 1½x¼-in. machine screws, either plain or threaded; quote prices both ways; also prices on burs or nuts on each, nuts to be plain or tapped.

Seals.—See Plates, etc., (Motor Vehicle).

Sickles.—See Brushes and Sickles.

Sidewalk Construction.—District Commrs., Washington, D. C. For full details see Construction News—Road and Street Construction.

Smoke Stack.—Monsanto Chemical Wks., St. Louis, Mo.—Guyed steel smoke stack, 150 to 170-ft. high, 7 ft. diam.

Stave Machinery.—See Lath and Stave Machinery.

Steam Separator.—See Machine Shop Equipment.

Steel (Tool).—See Miscellaneous Supplies.

Steel Bar (Reinforcing).—See Material for Electrical Conduit.

Stokers (Chain Grate).—See Boilers, Stokers, etc.

Tank.—See Utilities Equipment (Electric).

Tanks (Storage).—See Water Works Improvements.

Tank and Tower.—Calhoun Machinery Exchange (Mchy. Dealers), City Hall Bldg., El Reno, Okla.—50,000 gal. water tank on 75 to 100-ft. tower.

Tanks.—Fort Worth, Texas—Details under Construction News—Water Works.

Tape.—See Textile Materials.

Tennis Back Stops.—Lorick & Lowrance, Inc., (Jobbers), Columbia, S. C.—To correspond with manufacturers of tennis back stops.

Textile Machinery.—Asheville Knitting Mills, Inc., Box 27, Asheville, N. C.—To purchase all classes of machinery for dyeing,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

bleaching and finishing hosiery and underwear.

Textile Material.—A. M. Jelf Manufacturing Co., 238 W. Main St., Lexington, Ky.—Correspondence with mills manufacturing nainsooks, batiste and other material suitable for underwear and woven mercerized tape, ¼ in. wide.

Tile.—See Building Material.

Tile.—G. E. Lineberry, Supt., State School for Blind, Raleigh, N. C.—To correspond with manufacturers of tile suitable for building swimming pool.

Tower.—See Tank and Tower.

Transformers. — See Utilities Equipment (Electric).

Transmission Line.—See Electrical Equipment.

Tugs (Motor).—U. S. Engineer Office, 815 Witherspoon Bldg., Philadelphia, Pa.—Bids until June 22 to construct and deliver four 50-ft. steel motor tugs.

Utilities Equipment (Electric). — Bond Trustees, of Town of Starke, Fla.—Bids until June 26 for following utilities equipment:

- 2 complete units, each generating 75 KVA, 3 phase 2300 volt, operated by crude oil internal combustion engines.
- 1 crude oil storage tank, approximately 15,000 gal. capacity.
- 220 watt-hour meters, alternating electric current.
- 110 series of street lights and brackets.
- 1 constant current transformer.
- 15 potential transformers.
- One 100 and one 150 ft. head submerged type impeller pump and electric motor.
- One 150 centrifugal booster pump and electric motor.
- One 8 or 10-in. well, 500 ft. deep.
- One 50,000 gal. capacity concrete reservoir; specifications from Jos. E. Craig, Consult. Engr., 427 King St., Jacksonville, Fla.

Valves and Hydrants.—See Water Works Improvements.

Valves (Sluice).—U. S. Engineer Office, Florence, Ala.—Bids until June 23 to furnish and deliver 13 sets of sluice valves, operating mechanism for the same, riveted steel pipe and other appurtenances for the sluice section of Wilson dam.

Water Works.—Fort Worth, Tex.—Details under Construction News—Water Works.

Water Works Improvements.—City of Woodward, Okla., S. J. Dohrer, Clerk—Bids until June 12 for following materials and general contract for water works improvements:

- Section A—9600 lin. ft. of 16-in. H. & S. Class B cast iron pipe.
- Section B—4000 lin. ft. of 16-in. Class A and 5300 lin. ft. of Class B, H. & S. cast iron pipe.
- Section C—1036 lin. ft. of 6 to 12-in. H. & S. Class B cast iron pipe, 4358 lin. ft. of 6 to 12-in. H. & S. Class A cast iron pipe.
- Section D—16,000 lbs. standard hubbed Class B fittings, 16-in. and smaller.
- Section E—5070 lbs. standard flanged Class B fittings F. & D., 16-in. and smaller; 5300 lbs. special length flanged Class A cast iron pipe, F. & D. 10-in. and 16-in. pipe, 8 to 12 ft. lengths.

Four 4-in., six 6-in., three 10-in., two 12-in. and three 16-in. gate valves and boxes, H. E.; one 10-in. gate valves and boxes flanged; one 12-in. gate valve with 5-ft. extended stem and wheel flanged; one 16-in. gate valve and box flanged; one bevel gear with 5 ft. 6-in. extended stem and wheel; one 1,000,000 gal.

steel storage tank; six 32-in. diam. screen wells, 50-70 ft. deep.

General Contract for section 1 includes 5455 lin. ft. of 6 to 16-in. cast iron pipe and 6 fire hydrants.

Section 2—19,035 lin. ft. of 6 to 16-in. cast iron pipe and 100 lin. ft. of 10-in. vitrified sewer drain at storage reservoir.

Section 3—16 bents of river crossing piling. Section 4—12 concrete caps on piling bents and 735.5 lin. ft. wrought steel pipe at river crossing.

Section 5—329 cu. yds. excavation and 320 cu. yds. reinforced concrete.

Section 6—Six brick well houses, including in each 43 cu. yds. excavation, 13 cu. yds. reinforced concrete, 6.11M. common brick, 1 wooden derrick.

Section 7—One operator's residence.

Section 8—One meter pit and house, including 2 cu. yds. excavation, 1.6 cu. yds. Pl. concrete and 2.6M. faced brick; Black & Veatch, Consult. Engrs., 701 Mutual Bldg., Kansas City, Mo.

Well.—See Utilities Equipment (Electric). **Woodworking Machinery.**—Sherrill-Green Furniture Co., Inc., Statesville, N. C.—Machinery for manufacture of dining room furniture.

Wells.—See Water Work Improvements.

Wire Cloth.—See Miscellaneous Supplies.

Wire (Steel Welding).—See Miscellaneous Supplies.

Wrenches (Monkey).—See Miscellaneous Supplies.

Financial News

New Financial Corporations.

Ark., Texarkana—The Texarkana Realty & Abstract Co. was incorporated with Dan Dewberry, Pres.; F. B. Mitchell and W. L. Reynaud, Vice-Pres.

Fla., Daytona—Daytona Bank & Trust Co., capital \$50,000, incorporated with W. M. Hankins, Pres.; J. A. Clark, Vice-Pres.

Fla., Jacksonville—Elliott Investment Co., capital \$2,500,000, incorporated with F. P. Hamilton, Pres.; J. S. Dover, Vice-Pres.

Fla., Plant City—Plant City Loan & Savings, Inc., incorporated; John W. Johnson, Mgr.

Fla., Tampa—Anderson-Doddridge & Co., capital \$75,000, incorporated with F. R. Anderson, Pres.; C. R. Doddridge, Vice-Pres.

Fla., West Palm Beach—Standard National Corp., capital \$500,000, was incorporated by M. Morgenthau, Jr.

Md., Baltimore—Polk, Marye, Talbott Co., 301 Morris Building; capital \$100,000, was incorporated by Joseph T. Polk, W. Canny Marye, and others.

Md., Takoma Park—Citizens Bank, capital \$50,000, was incorporated by Arthur L. Haislip, Ray D. Lillie, Luther S. Cannon and others.

Miss., Vicksburg—Southern Securities Corporation, capital \$25,000, incorporated by C. L. Warner, George Williamson and J. G. Hickman.

Mo., Kansas City—Davis-Wellcome Missouri Mortgage Co., capital \$100,000 inceptd. by J. P. Davis, B. H. Davis, D. L. Davis and others.

Mo., Kansas City—Kansas City Fidelity Corp., capital \$100,000, incorporated by A. L.

Collins, R. F. Swett, W. C. Sanders, H. Dawson, C. G. Broeker.

Mo., St. Louis—Arthur Maxwell & Co., was incorporated by H. M. Morton, Arthur Kwint, S. I. Trachtenberg.

Mo., St. Louis—Automotive Finance Co., capital \$7200, was incorporated by Guy Wilson, H. J. Bube, J. B. Kreiger and others.

Mo., St. Louis—Caruth Investment Co., was incorporated by Harry Deutman, Carrie C. Deutman, E. G. Monnig, Ruth J. Monnig.

Mo., St. Louis—Citizens Investment Co. was incorporated by H. D. Howell, L. S. Gloyd, E. J. Gregg and others.

Mo., St. Louis—English-Hunn Co., capital \$65,000, incorporated by F. E. English, J. P. Hunn, W. M. English, Jessie E. Hunn.

Mo., Shelbyville—General Finance Co., capital \$10,000, was incorporated by W. R. Moran, E. M. Smoot, Prince Dimmitt, and others.

N. C., Greensboro—England Real Estate & Auction Co., capital \$10,000, was incorporated by R. L. England and others.

N. C., Raleigh—Elkin Estate & Insurance Co., capital \$25,000, was incorporated by J. M. Simmons, R. E. Brown and S. B. Woody.

S. C., Iva—The Farmers Bank of Iva and the Bank of Iva plan merging.

Tenn., Chattanooga—American Mutual Life Insurance Society was incorporated by D. W. Herdon, J. M. Tate, T. C. Bolton and others.

Tenn., Nashville—Commerce Union Bank, capital \$500,000, is consolidation of the Farmers' & Merchants' Bank of Nashville, American National Bank of Sparta, Union Bank & Trust Co., of Lebanon, Spring Hill Bank of Spring Hill, Lawrence Bank & Trust Co. of Lawrenceburg, and The Farmers' Bank & Trust Co. of Springfield, all Tennessee; A. E. Potter, Pres., Farmers' & Merchants' Bank, Nashville.

Tenn., Nashville—The Farmers and Merchants Bank of Nashville, absorbed the American National Bank of Sparta.

Va., Roanoke—Old Dominion Fire Insurance Co., capital \$500,000, was incorporated with H. L. Lawson, Pres.; C. D. M. Showalter, Sec.

New Securities.

Ala., Albany—Funding—City will sell \$100,000 bonds. Address The Mayor.

Ala., Anniston—Street—City, J. L. Wickle, Mayor, will receive bids until June 14 for \$13,000, \$1000 denom. bonds.

Ala., Birmingham—Public Improvement—City will receive bids until June 12 for \$140,000, 5½%, \$1000 denom. bonds. D. E. McLendon, Pres., City Comsn.

Ala., Center—Funding—Cherokee County, sold \$100,000, 5½% bonds to Otto, Marx & Co. of Birmingham at a premium of \$3000.

Ala., Dothan—Sidewalk, Street, Sewer—City voted \$228,500 bonds, including \$48,000 for sidewalks, \$125,000 for street paving, and \$55,000 for sewers. Address The Mayor. (Lately noted.)

Ala., Eufaula—School and Bldg.—City, H. H. Conner, Mayor, voted \$100,000, 6% bonds.

Ala., Forrest City—School—Special School Dist. No. 7 will open bids June 11 for \$30,000 bonds. Address E. B. Smith, Sec. School Bd.

Ala., Talladega—School — City, M. R. Jainer, Mayor, voted \$100,000, 5%, \$1000 denom. bonds.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Ark., Blytheville—Road—Mississippi County Comms., contemplate \$400,000 bond issue.

Ark., Marion—School—Marion School Dist., W. H. Cushman, Sec. School Bd., will receive bids until June 18 for \$120,000, 6% bonds.

Ark., Walnut Ridge—Road—The Lawrence County Bank purchased \$75,000 bonds from Road Improvement Dist. No. 5 and \$20,000 of Road Dist. No. 1. Address Dist. Comms.

Fla., Apalachicola—Road—Franklin County Comms., contemplate election on \$100,000 bonds.

Fla., Eustis—School—Eustis will vote June 23 on \$60,000 bonds. Address School Trustees.

Fla., Key West—Street and Park—City, Harold Pinder, Clk., opened bids June 6 for \$200,000, \$1000 denom. bonds.

Fla., Kissimmee—School—School Dist. No. 4 will vote June 16 on \$95,000 bonds. Address School Dist. Trustees.

Fla., Larkins—School—Larkins School Dist. No. 6, will sell \$17,000, 6%, \$1000 denom. bonds in Miami June 12. Address School Dist. Trustees.

Fla., Miami Beach—Street—City, C. W. Tomlinson, City Clk., will receive bids until June 11 for \$440,000 bonds.

Fla., Ocala—Sewer, Street and Community Bldg.—City will vote July 17 on \$150,000 bonds. Address The Mayor.

Fla., Pahokee—Road—Town contemplates voting on \$70,000 bonds. Address The Mayor.

Fla., Punta Gorda—Highway—Charlotte County, R. C. Blount, Clk. Bd. of County Comms., will receive bids until June 26 for \$300,000, 6%, \$1000 denom. bonds.

Fla., St. Petersburg—Sewer—City will issue \$50,000 bonds. Address Director of Finance.

Fla., Tampa—School—Hillsborough County Bd. of Public Instruction, J. E. Knight, Sec., opened bids June 4 for \$10,000 bonds.

Fla., West Palm Beach—Municipal—City will vote on \$200,000 bonds. Address City Mgr. Wright.

Ga., Andersonville—School—Andersonville Dist. voted \$12,000 bonds. Address School Dist. Trustees.

Ga., Decatur—Water and Sewer—City sold \$150,000 bonds. Address The Mayor.

La., De Ridder—Road and Bridge—Beauregard Parish, D. W. McFatter, Sec. Treas., will receive bids until June 23 for \$150,000, 6% bonds.

Miss., Aberdeen—School—A. K. Tigrett and Co., Memphis, Tenn., purchased \$10,000, 6% Green Wood Springs Consolidated School Dist. bonds and \$15,000 Hamilton School Dist. bonds. Address Dist. Trustees.

Miss., Louisville—Light—City, John O. Bennett, Mayor, will vote June 12 on \$30,000 bonds.

Miss., Oklahoma—Municipal—City sold \$15,000 bonds to A. K. Tigrett and Co. of Memphis, Tenn. Address The Mayor.

Mo., Bevier—School—Bevier Special School Dist., D. M. Williams, Dist. Sec., will receive bids until June 15 for \$18,000, 5% bonds.

Mo., Burlington Junction—Water and Sewer—City will vote June 19 on water and sewer bonds. Address The Mayor.

Mo., Jefferson City—Bonus—State will vote in July on \$4,600,000 bonds. Address The Governor.

Mo., Mansfield—School—Mansfield School Dist. voted \$11,000 bonds. Address School Dist. Trustees.

Mo., Tipton—Water and Sewer—City con-

templates voting on bonds. Address The Mayor.

N. C., Asheville—Road and Bridge—Buncombe County, E. M. Lyda, Chmn. Bd. of Comms., will receive bids until June 9 for \$250,000 bonds.

N. C., Bessemer City—Street and Water—City sold \$60,000, 6% bonds to Caldwell, Mossér & Williams, Inc. of Chicago, at a premium of \$1425. Address The Mayor.

N. C., Elizabeth City—School—City, W. F. Aydlett, Chmn. Bd. of Trustees, will receive bids until July 2 for \$120,000, \$1000 denom. bonds.

N. C., Greensboro—School—Guilford County, Thomas R. Foust, Sec., sold \$500,000, 5% bonds to the Title Guarantee and Trust Co. of Cincinnati, Ohio.

N. C., Henderson—Street—City, A. A. Bunn, Mayor, will issue \$200,000 bonds.

N. C., Jefferson—Road—Ashe County sold \$310,000 bonds to Stacy & Brann of Greensboro at 101.30. Address County Comms.

N. C., Kernersville—Improvement—Town, J. W. Woolen, Sec., will receive bids until June 7 for \$25,000 bonds.

N. C., Kinston—Lenoir County sold \$100,000, 5% bonds to a Cincinnati bank at par and accrued interest and a \$150 premium. Address County Comms.

N. C., Lumberton—School—Lumberton sold \$160,000, 5½% bonds to Kinsey and McMahan, Toledo, Ohio, for \$166,332. Address School Bd.

N. C., Mount Airy—Street and Funding—City received bids until June 5 for \$68,000 bonds. A. V. West, Mayor.

N. C., Mount Gilead—Street—Town, C. M. Capel, Clk., will receive bids until June 26 for \$60,000, 6% bonds.

N. C., Raleigh—Courthouse—Wake County, W. M. H. Penny, Clk. Bd. of Comms., will receive bids until June 25 for \$20,000, 5½%, \$1000 denom. bonds.

N. C., Raleigh—School—Wendell Graded School Dist., Lottie Lewis, Treas., received bids until June 4 for \$25,000, 6%, \$1000 denom. bonds.

N. C., Rutherfordton—Street—Town, C. F. Greer, Mayor, opened bids June 4 for \$50,000, 5½%, \$1000 denom. bonds.

N. C., Troy—Street—Town, M. A. Nicholson, Clk., will receive bids until June 12 for \$60,000 bonds.

N. C., Winston-Salem—Municipal—City sold \$2,465,000 bonds to a syndicate composed of the Wachovia Bank & Trust Co., Harris, Forbes & Co., National City Co., Bankers Trust Co., C. D. Barney & Co., and E. H. Rollins & Sons. Address The Mayor.

Okla., Canton—School—Canton School Dist. voted \$10,000 bonds. Address Dist. Trustees.

Okla., Ringwood—School—Consolidated School Dist. No. 1 voted \$25,000 bonds. Address School Dist. Trustees.

S. C., Columbia—School—Chesterfield School Dist. No. 18, W. P. Odom, Chmn. will sell \$16,000, 5% bonds.

S. C., Columbia—School—City sold \$150,000 5% bonds to Lewis S. Rosentiel, of Cincinnati. Address The Mayor.

S. C., Fort Mill—Indebtedness—Town sold \$25,000 bonds to the First National Bank of Fort Mill. Address The Mayor.

S. C., Greenville—School—City, Geo. W. Sirrine, Chmn. Bd. of Trustees, will receive bids June 12 for \$240,000, 5% bonds.

S. C., Heath Springs—School—City voted \$5000 bonds. Address Dist. Trustees.

S. C., Latia—Sewer and Waterworks—City, L. L. Watson, Mayor, will receive bids until June 15 for \$60,000, 5%, \$1000 denom. bonds.

Tenn., Cleveland—School and Indebted-

ness—Town of Cleveland and Bradley County will vote June 30 on \$220,000 bonds. Address The Mayor or County Comms.

Tenn., Knoxville—School—City will vote in September on \$1,000,000 bonds. Address The Mayor.

Tenn., Lenoir City—Hospital—City will vote August 4 on \$30,000, 5½% bonds. Address The Mayor.

Tenn., Memphis—Improvement—City will sell \$1,527,000 bonds and \$500,000 notes June 12. C. C. Pashby, City Clk.

Tenn., Morristown—School—City voted \$200,000 bonds. Address The Mayor.

Tenn., Selma—Drainage—McNairy County sold \$75,000 Hatchie Creek Drainage Dist. bonds to I. B. Tiggett & Co. of Jackson, Tenn. Address County Comms.

Tex., Bertram—School—City will vote June 9 on \$20,000 bonds. Address Pres. Bd. of Trustees.

Tex., Brownwood—Bridge—Brown County Comms. Court, R. E. Lee, County Judge, voted \$35,000 bonds. (Lately noted.)

Tex., Carthage—Road—Panola County, Precinct No. 4, Road Dist. No. 6, will vote June 16 on \$10,000 bonds.

Tex., Celeste—School—Celeste Independent School Dist. voted \$14,500 bonds. Address Pres. Bd. of Trustees.

Tex., Corsicana—School—City, J. A. Harper, City Sec., will receive bids until June 15 for \$600,000, 5%, \$1000 denom. bonds.

Tex., Corsicana—Road—Navarro County Comms., will consider petition June 11 to vote on \$4,750,000 bonds.

Tex., Frisco—Waterworks and Lights—City will vote on bonds. Address The Mayor.

Tex., Graford—School—City voted \$23,000 school bonds. Address The Mayor.

Tex., Houston—Navigation—Navigation Dist. Comn. sold \$4,000,000, 5% bonds to the National Bank of Commerce, Houston, at par and accrued interest and a premium of \$30,000.

Tex., Howe—School—City voted \$25,000 bonds. Address Pres. Bd. of Trustees.

Tex., Killeen—School—Killeen voted \$45,000 bonds. Address The Mayor.

Tex., La Grange—School—City voted \$115,000 bonds. Address Pres. Bd. of Trustees.

Tex., Lingleville—School—City will vote June 9 on \$14,000 bonds, G. F. Wilcox, Sec. School Bd.

Tex., Sinton—Waterworks—City will vote June 19 on \$45,000 bonds. Address The Mayor.

Tex., Wolfe City—School—City voted \$50,000 bonds. Address The Mayor.

Va., Danville—Sewer—City will vote June 19 on \$50,000 bonds. Address The Mayor.

Va., Hadlock—School—Hadlock will vote on \$200,000 bonds. Address D. W. Peters, Supt. of Schools for Northampton County.

W. Va., Parkersburg—Road—Harris Dist., Wood County, will vote June 26 on \$88,000 bonds. Address County Comms. (Lately noted.)

Financial Notes.

Calcasieu National Bank of Southwest Louisiana at Lake Charles, Lake Charles, La., will increase capital from \$750,000 to \$1,000,000.

Central National Bank, Richmond, Va., increased capital to \$1,000,000; Mr. Wright, Mgr.

Hancock County Bank, Bay St. Louis, Miss., will increase capital from \$50,000 to \$240,000.

Southwest Louisiana Farm Mortgage Co., Lake Charles, La., will increase capital from \$375,000 to \$500,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Trade Literature.

Surveying Instruments.

Gurley transit instruments, levels, alidades, plane table outfits, hand levels, tapes, service rods, leveling and stadia rods, etc., are described and illustrated in a folder issued by W. & L. E. Gurley, Troy, N. Y. The pictures are finely made and the reading matter complete and instructive.

Cutting, Burning and Brazing Equipment.

Imperial, (oxy-acetylene), welding, cutting, carbon burning, lead burning, soldering and brazing equipment together with the Imperial acetylene generator are described in a bulletin published by the Imperial Brass Manufacturing Co., 1200 West Harrison St., Chicago, Ill. There are many illustrations giving detailed views of this equipment besides tables of specifications, etc.

Bilged Steel Barrel for Liquids.

The "Gem" bilged steel barrel manufactured by the Petroleum Iron Works Co., Sharon, Pa., is pictured with an appropriate description in a folder issued by them. This barrel is made in only 55 gallons capacity, either black or galvanized, and it will, it is stated, protect marketers of liquids against denting, crushing and breaking and moreover, it is easy to handle on account of its form.

Truck Loader Elevator Units.

A folder published by the George Haiss Manufacturing Co., Inc., 141st St. and Rider Ave., New York, is devoted to the merits of the Haiss truck loader elevator units for mounting on standard motor truck chassis. This machine can be put on any suitable motor truck and it can be moved rapidly from place to place, the spring suspension and rubber tires enabling it to run at good speed. Pictures of the machine are shown as equipped with self feeding propellers.

Heavy Duty Pumping Machines.

A fine folder concerning the Koebring heavy duty pavers has been issued by the Koebring Company, Milwaukee, Wis., manufacturers of concrete mixers, cranes, draglines and shovels. It is completely illustrated, the pictures including several large half tone cuts of the No. 32 E, the No. 21 E, the No. 14 E, the No. 10 E, and the No. 7 E. Smaller illustrations, yet also of good size, show these machines engaged on various road construction. Specifications in detail are given on other pages.

Portable Timing Device.

Accuracy of .1 in 60 seconds is attained in a portable timing device, described in Bulletin No. 46,053, recently published by the General Electric Company. This device consists of an encased clock, to be used with a standardized clock as a means of secondary timing, to supplant the stop watch. It has applications which enable its use with graphic instruments, measurements of angular velocities, and for indicating a definite time-interval ranging from one second to any whole number of minutes. As illustrated in the Bulletin, the instrument consists of a clock, relays, and a gear train which by adjustment can be set to meet different demands of service. Power is supplied from a local flashlight type of battery. In addition to cutting the possibility of error down to .1 second, the portable timing device can be utilized for measurements ordinarily requiring a combination of instruments.

Highway Magazine for May.

There are two items of interest to the South in the Highway Magazine for May, one of them being a description of how a surface drainage problem on a Georgia highway was solved by the use of Armco corrugated iron culvert pipe and the other by John Klorer, City Engineer, New Orleans, La., on the resurfacing of Poydras Street there with asphalt without disturbing the original pavement composed of granite blocks averaging ten inches in thickness. Several other very entertaining and instructive articles also appear in this publication which is issued by the Armco Culvert & Flume Manufacturers Association, Chicago.

Hardware Jobbers Directory.

The American Hardware Jobbers Directory and Trade Name Index. Volume 10, 1923 edition, has been issued by the publisher, Edward G. Baltz, 1701 Arch St., Philadelphia, Pa. It has 240 pages, containing a list of all jobbers of hardware in the United States and Canada, the lines of goods handled including fifty-four classifications, the names of buyers, etc., a list of jobbers of heavy hardware, a preferred list of department stores which handle hardware and house furnishing goods, a list of New York exporters of hardware, a list of manufacturers agents in this country and in Canada, etc. The trade name index contains in alphabetical arrangement the names of 7000 hardware articles. The book sells for \$2.50. The contents of the volume are arranged first by states alphabetically and then by cities and towns in like order.

About Southern Mortgage Bonds.

"How to Judge Southern Mortgage Bonds" is a valuable and timely booklet issued by the Adair Realty & Trust Co., Healey Building, Atlanta, Ga., which will be welcomed by investors and others interested in finance. It narrates a most instructive and entertaining history of Southern progress and shows that today the South is facing a program of development hitherto unequalled. The enormous schedule of construction ahead demands that the Southern states must seek capital outside of their own limits and this money is to be had by means of mortgage bonds, which are the theme of the booklet. The second part of the publication describes the Adair protected bonds and the third part tells of what this protection means. All of it merits perusal and thoughtful consideration by everyone interested in the South and its substantial advancement.

Steam for Process Purposes from New Turbine.

A manufacturing plant in which low pressure steam for process purposes is supplied from a turbine of special design is described in an illustrated leaflet issue by the De Laval Steam Turbine Co., Trenton, N. J. This turbine operates automatically either as a straight condensing turbine, as a back pressure turbine, as a bleeder turbine, as a mixed flow turbine, or as a low pressure turbine, in such a manner as to maintain a balance between power requirements, low pressure steam requirements, and the amount of power available from water power. This is accomplished by a third pressure-controlled valve, in addition to the high pressure and low pressure valves ordinarily controlled by the steam governor in a mixed flow turbine. It is remarked that the utilization of exhaust steam for heating and process purposes, or the production of power as a by-product from steam used at low pressure offers surprising economies.

Paving Brick Progress.

"Dependable Highways, Number 23," says that the vitrified paving brick industry enjoyed a volume of business in 1922 very appreciably greater than in 1921, despite the hindering influences of the coal strike, the railroad strike and the subsequent car shortage. Paving brick shipments showed a gain of 77 per cent in 1922 over the shipments in 1918. Engineers and others are urged to place their orders for brick early. The publication is issued by the National Paving Brick Manufacturers Association, Engineers Building, Cleveland, O.

Protection for Railroad Crossings, Etc.

"What would you do," asks the W. S. Godwin Co., Inc., in an illustrated folder, "if you were in any way responsible for the railroad crossing construction that made it possible for an auto truck to become inextricably caught on the track, derailing and wrecking a fast express and endangering the lives of several hundred passengers?" Then follows a picture showing a big locomotive over on its side, this being followed by a statement that such an accident could not have occurred had the crossing been of precast concrete slabs reinforced with Godwin steel paving guards. Copies of the folder may be obtained from the company at 12 East Lexington St., Baltimore, Md.

Road Building Equipment Bulletin.

The Littleford tar and asphalt heaters, paving tools and equipment for contractors, city and town governments, etc., manufactured by Littleford Bros., Cincinnati, O., are accurately and interestingly described and illustrated in a tastefully prepared bulletin of twenty pages recently issued. It will be found useful to everyone interested in road construction as it will enable them to make selections of proper equipment for their requirements satisfactorily and without delay, specifications being such as to make a choice easy.

Waterproofing of Concrete.

An article entitled "Integral Waterproofing—A Practical Discussion," written by Samuel T. Very, an architect, and which originally appeared in the publication "Architecture," has been reprinted in pamphlet form by the Truscon Laboratories, Detroit, Mich. Mr. Very made a series of tests to determine the advantages of waterproofing and, having reached the conclusions which he sought, he has narrated a most instructive story. Accompanying the article is a picture showing two samples of concrete, one which was not treated with waterproofing and another which was treated. The illustration demonstrates plainly that integral waterproofing makes a more compact mass by decreasing the normal size of the voids in concrete. The advantages of integral waterproofing are fully demonstrated.

Book Reviews.

Advertising to Retailers. By R. L. Burdick. New York: The Ronald Press Company. 1923. Pp. 308. Cloth. \$3.50.

The author of this book, who is of the Associated Business Papers, Inc., discusses in it specialized means and methods for developing trade distribution. He deals with a branch of advertising about which little information has been easy to obtain, viz., that addressed by manufacturers to the retail

(Continued on page 134.)



For the City of Palaces



The illustration above shows a train load of cast-iron pipe leaving our Burlington Works, to be reloaded on a steamer for Calcutta, India. It is part of a half mile of 36 in. and 42 in. pipe recently shipped to the Tata Iron & Steel Co., Ltd., at the above city. This was one of several train loads comprising the order.

It has been said of Calcutta "that its excellent water supply has done much for the sanitary condition of the city," and this order would indicate that every effort will be made to keep up this standard of excellence.

In India, modern materials are often handled by ancient methods as the illustration on the left shows. Here cast-iron pipe for a sugar house installation is being handled by elephant power.

Address Publicity Department, Burlington, N. J., for our new booklet, "USICAST PRODUCTS."

For detailed description of our products see page 216 of the 1922 Edition of Gas Engineering & Appliance Catalogue.

United States ^{Cast Iron} Pipe ^{and Foundry} Company

General Office: Burlington, New Jersey

SALES OFFICES:

Philadelphia: 1421 Chestnut St.
Pittsburgh: Henry W. Oliver Bldg.
New York: 71 Broadway
Chicago: 122 So. Michigan Blvd.

St. Louis: Security Bldg.
Dallas, Tex.: Magnolia Bldg.
Birmingham: 1002 American Trust Bldg.
Cincinnati: Dixie Terminal Bldg.
Kansas City, Mo.: Interstate Bldg.

Minneapolis: Plymouth Bldg.
Cleveland: 1150 E. 26th St.
Buffalo: 957 E. Ferry St.
San Francisco: Monadnock Bldg.

trade to win their confidence, co-operation and business, and he relates the experience of many firms in the handling of problems that are troublesome. The appeal to retailers is different from that to consumers, and Mr. Burdick shows how it is different. All questions arising in the advertising plan are given thorough treatment and there are many illustrations to illumine the text. Having had a broad personal acquaintance with such work the author analyzes the situation skillfully with a view to success and points out how to avoid errors.

International Exchange, Normal and Abnormal. By Thomas York. New York: The Ronald Press Company. 1923. Pp. 600. Cloth. \$5.

Bankers and merchants concerned with foreign trade will find this book valuable because it is both comprehensive and up-to-date. The author, who was formerly foreign exchange editor of the Wall Street Journal, has in years of experience gathered a full acquaintance with the subject and he conveys simple, concise and clear explanations of the various foreign exchange problems that confront business men under prevailing conditions in foreign trade and exchange and under present financing methods. He gives a precise statement of principles governing fluctuation of rates for the several classes of exchange, a full analysis of dollar financing operations, including use of dollar letters of credit, a thorough exposition of the use of future exchange to ward off exchange risks, a comprehensive discussion of exchanges in their present depreciated state and their effect on foreign trade, besides an unusually complete explanation of international security dealings. Principles are emphasized and the writer aims to impart a mastery of the details of exchange operations. Reference is made constantly to basic laws and the reader is thus enabled to see the whole subject in all its bearings. It is a practical and timely treatise.

Export Advertising. By David Leslie Brown. M. A. New York: The Ronald Press Company. 1923. Pp. 342. Cloth. \$4.

The author of this volume is manager of the advertising department of the Goodyear Tire and Rubber Export Co., and also chairman of the export committee of the Association of National Advertisers. He clearly sets forth in it what is needful to develop and control foreign advertising by methods that are sound and effective in domestic business, so that it is of definite value to concerns now engaged in foreign trade as well as to those who contemplate entering the field, and also to advertising agencies seeking to extend the radius of their service to customers. As stated in the preface this book is one result of twenty years of experience by Mr. Brown in advertising and sales work, and he undertakes to give adequate replies to the numerous questions that arise in the minds of men about to embark upon the ocean of foreign business. He seeks to enable American manufacturers and exporters to advertise abroad in the simplest and most efficient manner, duly considering the scientific expenditure of money for that purpose and also to improve advertising conditions abroad by co-operation and interchange of ideas. He says that export advertising does pay, as many firms have proved to their own satisfaction, and that the years before us should be years of constantly increasing opportunities for a greater volume of foreign trade. His book deals with the subject in comprehensive detail so that every side of the foreign advertising question is presented.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Business Connection Severed.

R. M. Sisk, vice-president and assistant treasurer of the Sharpville Boiler Works Co., Sharpville, Pa., recently severed his connection with the company and has not yet announced his plans for the future.

Porcelain Plant Completed.

The Knox Porcelain Company, Inc., of Knoxville, Tenn., recently completed construction of a very fine modern plant especially designed for the volume manufacture of high quality standard and special electrical porcelain. They are now in quantity production.

New Enamel Process for Automobiles.

An efficient method of enameling metal panel bodies at high temperatures is claimed to have been perfected by the Oxford Varnish Corporation of Detroit and Toledo. It is stated that cars finished by this "Oxvar" method have been running for two years under all sorts of road and weather conditions without their lustre being affected. Temperatures of 400 degrees are employed, yet it is said that there is not any loss of moisture in the wood frame, resiliency is not impaired, there are not any signs of charring or shrinking and squeaks are not developed. It is further remarked that the outstanding feature of the method, apart from its high lustre of great durability, is the great saving in time, labor, floor space and overhead expense. The speed, it is stated, is unprecedented, only 7½ hours being required for the whole high-bake process, and only from three to five coats of "Oxvar" enamel are required and only one pumice rub or sanding. Each coat is baked for 90 minutes. This finish could also be applied to typewriting machines, dictaphones, adding machines, etc.

A Valuable New Alloy Metal.

The Ohio Steel Foundry Co., Springfield, O., have developed an alloy metal known as Fahrte of which it is stated that it is highly resistant to oxidation and to temperatures up to 2300 degrees Fahrenheit. It is furnished in three grades. The N 1 grade (nickel-chromium) being described as the best for all installations requiring heat resisting or non-oxidizing metal except in the presence of sulphur, lead or zinc fumes and it should be used in all cases where continuous temperature up to 2200 degrees is maintained. Grade C S 2 (soft chrome) is brittle when cold, but tough when heated and can be machined about as readily as medium carbon steel. It resists continuous temperature to about 1900 degrees and is adaptable to installations where sulphur is present. Grade C H 3 (hard chrome) is tough and cannot be machined; Brinell test 340 to 460, or can be made file hard, but it is not as brittle when cold as the C S 2 grade. Can be used where castings are not machined and temperatures up to 1900 degrees are maintained. Fahrte can be employed as material for carbopizing containers; annealing boxes, lead, cyanide and salt pots; retort tubes and muffles; furnace grates, rails, door and automatic stoker parts; rolls, chains, links, bars, tubes, etc., for continuous operation furnaces; molds for die casting

metals; piercing tips, extension and drawing dies for metal tubing manufacture; bars points, supports, etc., for enameling furnaces; dies, molds and piercing tips for glass making machinery, stirring arms for gas producers and metallurgical roasting furnaces; retorts for cracking and distillation of oil; containers for baking carbon products, etc. It is said to be most efficient and inexpensive.

Sale of Plant, Machinery, Material, Etc.

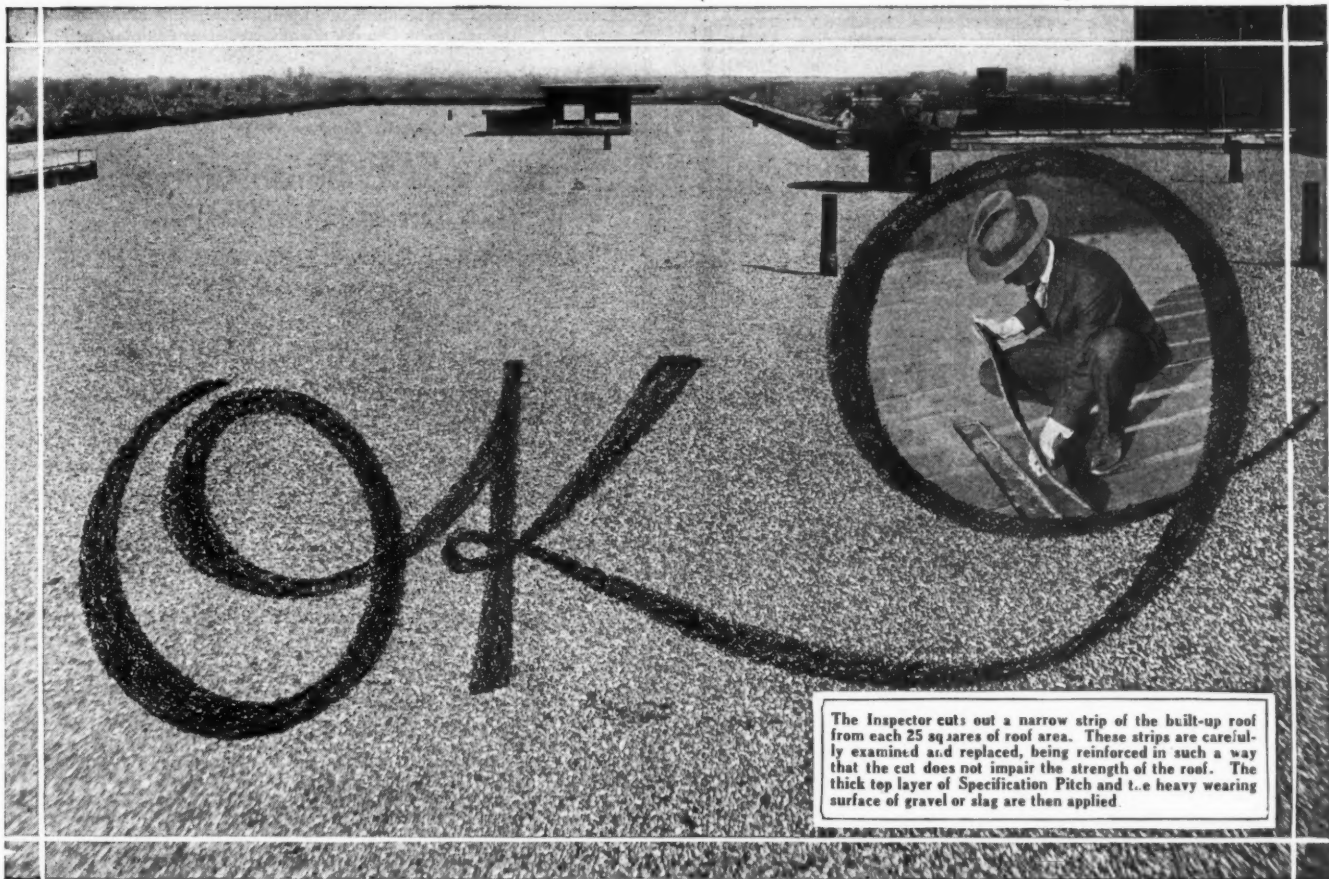
The valuable plant of the Wright Roller Bearing Company, situated at Twentieth St. and Indiana Ave., Philadelphia, Pa., will be sold at master's sale in equity on the premises, on Wednesday, June 27, at 10 o'clock A. M., according to a formal announcement which appears elsewhere in these columns. The sale includes a two story factory building of brick and concrete 61 by 270 feet in dimensions, a two story brick office building, a one story millwright shop, and a one story brick boiler house, with a lot 109 by 280 feet and another lot adjoining 100 by 270 feet. There is also a large amount of machinery, material and equipment in the sale, particulars of which are stated in the advertisement. Samuel T. Freeman & Co., 1519-1521 Chestnut St., Philadelphia, are the auctioneers.

New Building and Construction Company.

The Morton C. Tuttle Company, 813 Converse Building, 101 Milk St., Boston, Mass., has been established by Morton C. Tuttle, who is its president, and who has withdrawn from the general managership of the Aberthaw Construction Co. With Mr. Tuttle in the new company, which will engage in general building and in water power construction, are associated as directing officers Nathaniel McL. Sage, Clayton W. Mayers and Lyle M. Richardson all of whom were for some time co-workers with him in the Aberthaw organization, Mr. Sage, for instance, being during the last five years manager of the Southern office in Atlanta, and Mr. Richardson general superintendent in charge of Southern work. Mr. Mayers was chief estimator. The Tuttle organization will occupy offices in the Park Square building when they are completed.

Success of Brick Making Enterprise.

Peter Zechini, Jellico, Tenn., writes the MANUFACTURERS RECORD: "A little over a year ago I organized the Jellico Brick Corporation and have installed modern machinery for the manufacture of brick. So great is the demand for these brick that the present factory can only fill a small portion of the orders and must enlarge its capacity. Our field of sale extends into Kentucky, Ohio, Tennessee, Florida, Alabama, North and South Carolina. We have mountains of fire clay and shale and a number of seams of good coal to produce power, and for use in burning the best brick. We can produce red, brown-buff, and cream colored bricks." Continuing Mr. Zechini says that they have a supply of material that is surpassing as to quality and quantity, with the best of fuel right on hand for the manufacturing process and thus, with steady production, the best brick can be made at reduced costs and disposed of accordingly.



The Inspector cuts out a narrow strip of the built-up roof from each 25 squares of roof area. These strips are carefully examined and replaced, being reinforced in such a way that the cut does not impair the strength of the roof. The thick top layer of Specification Pitch and the heavy wearing surface of gravel or slag are then applied.

The Man on the Roof is Protecting Your Interests—

When you insist upon a Barrett Specification Bonded Roof you know that you are insured against all repair and maintenance expense for 20 years. But do you realize that you are virtually insured against roof troubles as well as repair expense?

For every Barrett Specification Bonded Roof is not only built by a dependable roofer, but is supervised by a Barrett Inspector who sees that The Barrett Specification is carried out to the letter.

That means the Barrett Inspector will see personally that the high-grade pitch and felt called for by The Barrett Specification are properly applied to give maximum strength and durability. It means that he will make the famous "cut-out test" shown and described above; and will see that the thick top layer of Specification Pitch is *poured* (not mopped) and that the gravel or slag surface is properly

imbedded to insure the utmost resistance to communicable fire.

Not until the finished roof is O.K'd by the Barrett Inspector is the Surety Company's Bond issued. This Bond Guarantee is much more than a pledge of "no roof repairs." It is proof positive that the roof was properly constructed of the highest grade materials. And after all, this is the best insurance of long, uninterrupted roof service.

There are two types of Barrett Specification Bonded Roofs—Type "AA," bonded for 20 years, and type "A," bonded for 10 years. Both are built of the same high-grade materials, the only difference being in the quantity used.

Copies of The Barrett Specification sent free on request.

The *Barrett* Company 

40 RECTOR STREET—NEW YORK CITY

THE BARRETT COMPANY, LIMITED

2021 St. Hubert Street, Montreal, Que., Canada.

Barrett Specification Roofs Bonded for 20 and 10 Years

The "Safety Plus" Factor in Investing

THE skilled investor does not select his bond holdings for safety alone, but also considers their diversification as a factor of major importance.

As the funds invested in bonds increase, they should be distributed among varied types of bonds originating in different localities. Yields, maturities and marketability of holdings should conform to the individual circumstances and requirements.

The test of time has established the safety of the volume and variety of bond issues underwritten by Halsey, Stuart & Co. in every important field of conservative investment. This breadth of operations equips the House to give its customers an unusual service in diversification of bond investments to meet each one's particular needs.

Moreover, it is the policy of the House to pay attention to the make-up of an investor's bond holdings and to advise the purchase of bonds which fit his requirements. It has the experienced judgment and the range of offerings to make such service reliable.

Send for this Booklet



Our booklet, "Choosing Your Investment House," will give you a better idea of Investment Banking Service—how to judge it and how to use it to your own best advantage.

*Write for
Booklet 336*

HALSEY, STUART & CO.
INCORPORATED

CHICAGO 201 S. La Salle St.	NEW YORK 14 Wall St.	PHILADELPHIA 100 S. Broad St.	BOSTON 82 Devonshire St.
DETROIT 601 Griswold St.	ST. LOUIS 319 N. Fourth St.	MILWAUKEE 425 E. Water St.	MINNEAPOLIS 610 Second Av., S.

The Oscar T. Smith Company

Manufacturing Bank Stationers
407-9-11 E. SARATOGA STREET
BALTIMORE, MD.

OSCAR T. SMITH
President

BONDS AND STOCK CERTIFICATES

ENGRAVED BY

SECURITY BANK NOTE CO.

"PROVIDE ABSOLUTE PROTECTION"

Requests for Quotations and Sketches Solicited

PHILADELPHIA
223-5-7 CHESTNUT ST

NEW YORK
20 BROAD ST



6%—No Investor ever refused his money when he offered his Certificate to be cashed in. 22 Years in business without loss to any Investor.

G. A. MERCER COMPANY
Investment Bankers Savannah, Ga.
Ask for Booklet 1 B M

BLACK & COMPANY

(WILMER BLACK, C. P. A.)

CERTIFIED PUBLIC ACCOUNTANTS

OFFICES:

Suite 1208 GARRETT BUILDING
6 HAMILTON ROW

BALTIMORE, MD.
HAGERSTOWN, MD.

F. WM. KRAFT LAWYER

Specialist in Examination of
Municipal and Corporation Bonds
and Preparation of Proceedings relating thereto

517-520 Harris Trust Bldg.
111 West Monroe St. CHICAGO, ILL.

TODD & McCOLLOUGH

Members of

AMERICAN SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS

Auditing, Cost and Accounting Systems,
and Federal Tax Service.

No. 323 South Tryon St.

Charlotte, N. C.

THE BANK OF ALABAMA

ENSLEY, ALABAMA

R. A. TERRELL
J. W. MINOR
FOSTER HAMILTONPresident
Vice-President
Cashier

We Solicit Your Business

**IN RICHMOND
VIRGINIA**The First National Bank
offers complete facilities
for quick collections in this
territory.**FIRST
NATIONAL BANK**JOHN M. MILLER, JR.,
PresidentResources over \$30,000,000
Capital and Surplus \$4,000,000**DOES YOUR BUSINESS NEED
LARGER BANKING FACILITIES?**It is the purpose of this bank
to cooperate with progressive
firms who need modern bank-
ing facilities.We are glad to correspond
with prospective clients con-
cerning their accounts.**BALTIMORE COMMERCIAL BANK**

GWYNN CROWTHER, President

Pratt Street and Market Place, Baltimore, Md.

Capital and Surplus \$900,000.00

Member Federal Reserve System

MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL, \$1,000,000

**ENTIRE BOND ISSUES OF
SUCCESSFUL INDUSTRIALS PURCHASED**

Offerings Invited

Resources - - - - - \$21,000,000

Established 1884

Mercantile Trust and Deposit Co.

OF BALTIMORE

A. H. S. POST, President. F. G. BOYCE, JR., Vice-President.

We Buy Bondsand invite inquiries from municipalities and contractors
We deal in city, county, district, school, road, lighting,
water works and other municipal issues.**A. C. ALLYN & CO.**

71 W. Monroe St., Chicago Ill.

NEW YORK MILWAUKEE MINNEAPOLIS BOSTON

JOHN NUVEEN & CO.

First National Bank Building

CHICAGO

We purchase SCHOOL, COUNTY and MUNICIPAL
BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale

We Buy BondsCity, County, School and Road, from
Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO**Attention
Contractors and Municipalities****We Buy
MUNICIPAL BONDS****THE LEWIS S. ROSENSTIEL CO.**

Union Trust Building

Cincinnati

We Buy**SOUTHERN
MUNICIPAL
BONDS**

Correspondence Solicited

CALDWELL & CO., NASHVILLE, TENN.New York Chicago St. Louis
Detroit Cincinnati Chattanooga Knoxville**HAVE YOU BONDS FOR SALE?**WE BUY ALL CLASSES OF MUNICIPAL BONDS,
INCLUDING CITY, COUNTY, SCHOOL,
PAVING, ROAD AND DRAINAGE*The Hanchett Bond Co. Inc.*

39 SOUTH LA SALLE ST., CHICAGO

WE BUY MUNICIPAL BONDSWe are interested in the purchase of
Southern Municipals including road,
school, county, drainage and levee bonds.**M. W. ELKINS & CO.**

Southern Trust Bldg.

Little Rock, Ark.

NOTICE TO CONTRACTORSWe want to buy bonds issued by cities, towns
counties, school, road or drainage districts that you
may be able to take in exchange for work. Address
us at our nearest office.**W. L. SLAYTON & CO.**

New Orleans, La.

Chicago, Ill.

Toledo, Ohio

Glasgow, Mont.

Tampa, Fla.

PATENTS TRADE-MARKS AND COPYRIGHTS

Before disclosing an invention the inventor should write for our blank form, "EVIDENCE OF CONCEPTION." This should be signed and witnessed, and if returned to us, together with model or sketch and description of the invention, we will give our opinion as to its patentable nature.

Our Illustrated Guide Book, "HOW TO OBTAIN A PATENT," sent Free on request. Contains full instructions regarding Patents and Trade-marks.

VICTOR J. EVANS & CO., - Patent Attorneys

New York Offices Philadelphia Offices Pittsburgh Offices
R 1003 Woolworth Bldg 135 S. Broad Street 514 Empire Bldg.

Chicago Offices, 1114 Tacoma Bldg.

Main Offices: 749 9th Street N. W.

WASHINGTON, D. C.

"A Good Picture of Your Plant"

R.J. Shutting
BIRD'S-EYE VIEW
ARTIST

Chattanooga

Tennessee



THE HOUSE OF SERVICE

HAMMERMILL LETTER HEADS

For Bank, Mill, Mine, Factory and Commercial House

8 1/2 x 11—Full 20 lb. Weight

1000—\$5.35	5000—\$16.75
2000—8.70	10000—28.50

Shipped 48 Hours After Receipt of Order
Charges prepaid to your railroad station
Samples on request

LAREW PRINTING CO., Knoxville, Tenn.

FALSE ECONOMY



It isn't economy to save a few dollars by putting into jeopardy hundreds of thousands of dollars in property.

ECO WATCHMAN'S CLOCKS

involve a very small expense but they protect you from what may mean the entire loss of your plant. They keep your watchman on the job of watching the business you've spent years building up. Practically all the great manufacturing institutions of America are protected by Watchman's Clock Service. Your plant means as much to you as the largest plant does to the multimillionaire. See that it is properly watched.

ECO CLOCK COMPANY

"Quality Paramount"

194 Congress Street, Boston, Mass.

CRUDE SULPHUR

Guaranteed 99 1/2 % Pure

For use in Metallurgical field,
Fertilizer, Pulp, etc.

THE UNION SULPHUR CO.

Frasch Building, 33 Rector Street, New York City

SCHOOL DESKS



THE
A. H. Andrews Co.
CHICAGO

107 So. Wabash Avenue

Contractors and Manufacturers TIME CHECKS



We Make Them Promptly. Headquarters for Seals, Stock Certificates, Stencils, Steel Dies, Brass Signs, Enamel Plates, Memorial Plates, Church Seals and Pew Plates. Made on our Premises. Send for Catalogue.

THE J. F. W. DORMAN COMPANY
BALTIMORE, MD.

ALLIS-CHALMERS MFG. CO.

MILWAUKEE, WIS., U. S. A.

DESIGNERS AND BUILDERS OF

Steam Turbines, Electrical Machinery, Steam, Gas and Oil Engines, Centrifugal Pumps, Crushing & Cement Machinery, Etc.

MURPHY'S HOTEL Richmond, Va.

Virginia's largest and Richmond's most centrally located Hotel.

Every car line in the City passes Murphy's.

Rooms single and en suite

Railroad tickets sold and baggage checked at Hotel.

Main Hotel and Grace Street Annex fireproof. Rates \$1.00 and Up

JAMES T. DISNEY, Manager

CUTLER MAIL CHUTES

A complete and experienced organization in office, factory and field insures the continued maintenance of highest quality and the prompt and satisfactory completion of work.

CUTLER MAIL CHUTE COMPANY

Offices: Cutler Building

ROCHESTER, N. Y.

Factory: Anderson Ave.

Baltimore's Newest and Largest Hotel

Located in the heart of the wholesale and retail sections. Well lighted Sample Rooms. Attractive Cafeteria at Popular Prices. Beautifully decorated private dining rooms. Large Ball-room or Convention Hall, seating 500 people. Open Air Roof Garden (Open Season)



Every Room with private bath or shower

Rooms at \$4.00 per Day and Up

The SOUTHERN HOTEL
Fireproof Modern Convenient

LIGHT AND REDWOOD STS.
BALTIMORE, MD.

PAVERS KETTLES

Tar, Asphalt, Fillers and Compounds

Write for Catalog

THE JOS. HONHORST CO.

1016 W. Sixth Street, Cincinnati Ohio

BLUE BOOK OF SOUTHERN PROGRESS

"The information found in this book is most beneficial. Could the contents be known to the business men of the South, it would have a far-reaching effect toward restoring the business confidence and bringing about prosperity again."

"Every man, woman and child in the United States should read the Blue Book of Southern Progress. I will admit that I really have learned more about the South from it than I have by living in the South forty years. Single Copies 50c. **MANUFACTURERS RECORD** Baltimore, Md.

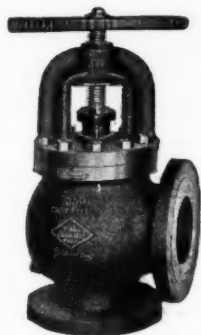
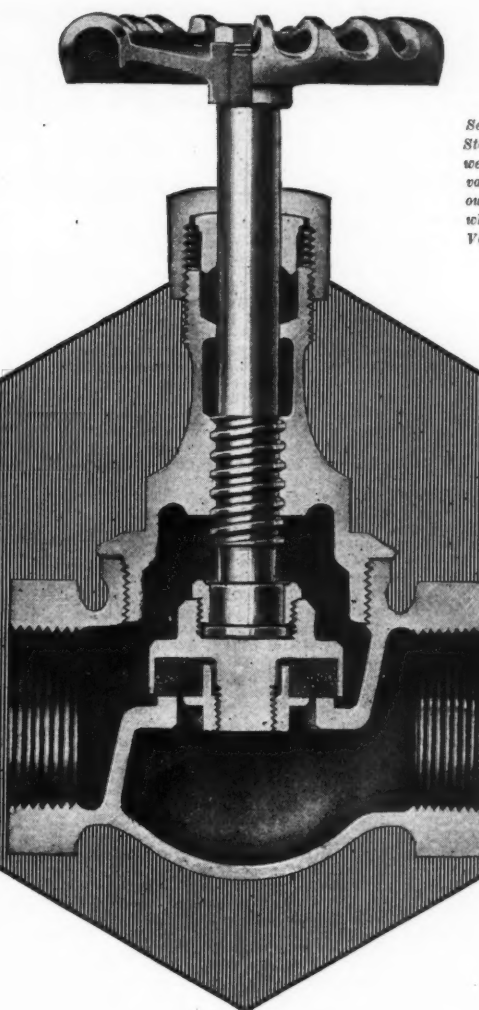


Fig. 397, Angle flanged, Extra Heavy Cast Steel Automatic Equalizing Stop and Check Valve. Also Extra Heavy Iron Body.



Sectional View Fig. 106, Jenkins Standard Brass Globe Valve, which we believe is the most widely used valve in America. Note the thorough even distribution of metal, which is typical of all Jenkins Valves.

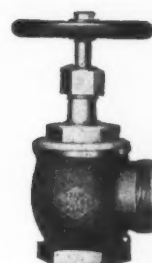


Fig. 715, Brass, Fire Line Valve. Responds in the emergency, neither sticks nor corrodes.



Fig. 720, Brass Rapid Action Valve, for instantaneous flow—stays open automatically.

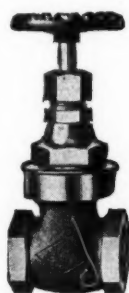


Fig. 370, screwed, Standard Brass Gate Valve.



Fig. 352, screwed, Standard Brass Swing Check Valve.



Fig. 325, screwed, Standard Iron Body Gate Valve.

Standardize on "Jenkins" for economy

You can bring *true* valve economy to your plant by using "Jenkins" wherever a valve is required. Freedom from costly repairs and replacement makes Jenkins Valves the least expensive.

Proper design, the result of years of experience in valve manufacture; close inspection; and rigid tests—all contribute to the well-known Jenkins reputation for *dependability* and *service*.

A few Jenkins Valves from the comprehensive line of brass, iron, and steel valves in standard, medium, and extra heavy patterns are illustrated. Send for bulletins of the valves you require.

JENKINS BROS.

80 White Street New York
524 Atlantic Avenue Boston
133 No. Seventh Street Philadelphia
646 Washington Boulevard Chicago

JENKINS BROS., LTD.,

Montreal, CANADA.

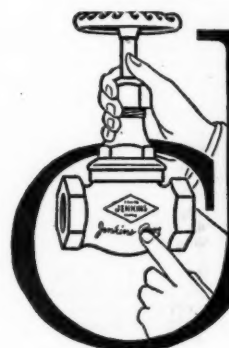
London, ENGLAND.

FACTORIES AT:

Bridgeport, Conn.; Elizabeth, N. J.; Montreal, Canada.



Fig. 709, Brass Air Gun for blowing away dirt, dust, lint and foreign matter.



Always marked with the "Diamond"

Jenkins Valves

SINCE 1864

PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close June 15, 1923.

SEALED PROPOSALS will be received by the U. S. Veterans Bureau, Room No. 744, Arlington Building, Washington, D. C., until noon, June 15, 1923, and then there publicly opened, for the construction, complete of Nurses' Quarters at U. S. Veterans Hospital No. 81, Bronx, New York City, as shown on drawings and as described in the specifications. This work will include four-story and basement building, reinforced concrete and hollow tile construction, brick veneered exterior walls, concrete foundations, interior plaster, interior and exterior painting, steam heat, all inside plumbing, electric installation, outside service connections, and approach work. Drawings and specifications may be obtained only upon application to the Maintenance and Repair Sub-Division, Room No. 790, Arlington Building, Washington, D. C. Deposit with application of a certified check or postal money order for \$50, payable to the Treasurer of the United States, is required as security for the safe return of the drawings and specifications within ten days from date of opening proposals. Drawings and specifications will be available (for inspection only) at U. S. Veterans Hospital, No. 81, Bronx, New York. Frank T. Hines, Director. May 16, 1923.

Bids close June 25, 1923.

SEALED PROPOSALS will be received by the U. S. Veterans' Bureau, Arlington Building, Washington, D. C., until noon, June 25th, 1923, and then there publicly opened in room No. 744 for the construction, complete of an Occupational Therapy Building at the U. S. Veterans' Hospital No. 42, Perryville, Maryland. This work will include hollow tile and stucco walls, interior plaster, interior and exterior painting, excavating and concrete foundations, slate roof, and all inside plumbing, heating and electric installations, all as shown on drawings, and as described in specifications. Drawings and specifications may be obtained only upon application to the U. S. Veterans' Bureau, Maintenance and Repair Sub-Division, Room No. 790, Arlington Building, Washington, D. C. Deposit with application of a certified check or postal money order for \$10.00, payable to the Treasurer of the United States, is required as security for the safe return of drawings and specifications within ten days from date of opening proposals. Drawings and specifications will be available (for inspection only) at the U. S. Veterans' Hospital No. 42, Perryville, Maryland. Frank T. Hines, Director, June 2, 1923.

Bids close June 19, 1923.

TREASURY DEPARTMENT, office of the Supervising Architect, Washington, D. C., May 19, 1923. SEALED PROPOSALS will be opened in this office at 3 p. m., June 19, 1923 for remodeling and enlarging the United States Post Office at Baton Rouge, La. Drawings and specifications may be obtained from the custodian at the site, or at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close June 18, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 16, 1923. SEALED PROPOSALS will be opened in this office at 3 p. m., June 18, 1923, for new hot water piping, etc., in the United States Court House and Post Office at Cumberland, Md., in accordance with specification and drawing, copies of which may be had at this office, or at the office of the Custodian, Cumberland, Md., in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close July 2, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., June 4, 1923.—SEALED PROPOSALS will be opened in this office at 3 P. M., July 2, 1923, for alterations and repairs to roof at the Auditor's Building, Washington, D. C. Specification and drawing may be obtained at this office. Jas. A. Wetmore, Acting Supervising Architect.

RATE: 35 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 4 P. M., Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close June 25, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 29, 1923. SEALED PROPOSALS will be received at this office until 3 p. m., June 25, 1923, and then opened for an extension to the building and driveway at the United States Post Office and Court House at Anniston, Ala., in accordance with the specifications and drawings mentioned therein. Copies of which may be had at this or at the office of the Custodian, in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close June 15, 1923.

SEALED PROPOSALS will be received by the U. S. Veterans' Bureau, Arlington Building, Washington, D. C., until noon, June 15th, 1923, and then there publicly opened in Room No. 744 for the construction, complete, of a Recreation Building and six duplex Officers' Quarters at U. S. Veterans Hospital No. 79, Dawson Springs, Kentucky. This work will include hollow tile and stucco walls (alternate on frame construction), interior plaster, interior and exterior painting, excavating and concrete foundations, slate roof, all inside plumbing, hot water heating and electric installations and the necessary grading and approach work, as shown on drawings, and as described in the specifications. Drawings and specifications may be obtained only upon application to the Maintenance & Repair Sub-Division, Room No. 790, Arlington Building, Washington, D. C. Deposit with application of a certified check or postal money order for \$10.00, payable to the Treasurer of the United States, is required as security for the safe return of the drawings and specifications. Drawings and specifications will be available (for inspection only) at U. S. Veterans Hospital No. 79, Dawson Springs, Kentucky. FRANK T. HINES, Director, May 7, 1923.

Bids close June 20, 1923.

DEPARTMENT OF THE INTERIOR, Washington, June 2, 1923—Sealed proposals will be received in this Department until 2 o'clock p. m., Wednesday, June 20, 1923, for furnishing 11,850 sets, more or less, of rollers and hangers for use in mounting the General Land Office map of the United States for 1923. Form of proposal, including specifications for the work, will be supplied on application. All proposals must be securely enveloped, marked "Proposals for map rollers and hangers", and be addressed to the Secretary of the Interior, Washington D. C. The right is reserved to reject any and all bids, or to accept or reject any part thereof in the discretion of the Department. F. M. GOODWIN, Assistant Secretary.

Bids close June 15, 1923.

PROPOSALS FOR FURNISHING MARINE BOILERS—Office of 3rd Mississippi River District, P. O. Box 404, Vicksburg, Miss. Proposals will be received here until noon, June 15, 1923, and then publicly opened, for furnishing eight marine boilers. Information on application.

Bids close June 19, 1923.

U. S. ENGINEER OFFICE, WILMINGTON, N. C. Sealed proposals will be received here until 12 o'clock noon June 19, 1923, and then opened for Dredging in Scuppernon River, North Carolina. Further information on application.

Bids close June 11, 1923.

UNITED STATES ENGINEER OFFICE, Florence, Ala.—Sealed Proposals will be received here until June 11, 1923, and then opened, for one 136-foot steel-hull, stern-wheel, steam-driven towboat. Further information on application.

Bids close June 23, 1923.

UNITED STATES ENGINEERING OFFICE, Florence, Ala.—Sealed proposals will be received here until 11 a. m., June 23, 1923, and then opened, for furnishing and delivering 13 sets of sluice valves, operating mechanism for the same, riveted steel pipe, and other appurtenances for the sluice section of Wilson Dam. Further information on application.

Bids close June 15, 1923.

PROPOSALS FOR PORTLAND CEMENT AND MOTORGRADE GASOLINE—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock a. m., June 15, 1923, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (1533) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 611 Gravier Street, New Orleans, La.; and Fort Mason, San Francisco, Calif.; also from the United States Engineer Offices in the Principal cities throughout the United States. A. L. Flint, General Purchasing Officer.

Bids close June 12, 1923.

\$240,000 5% School Bonds

Greenville, S. C.
Notice is hereby given that sealed bids will be received by the undersigned until 4 P. M., Tuesday, June 12th, 1923, for the purchase of TWO HUNDRED AND FORTY THOUSAND DOLLARS (\$240,000) of the bonds of the School District of the City of Greenville, S. C., dated July 1st, 1923, maturing serially as follows: \$10,000 on July 1st, 1924 and \$10,000 on July 1st each year thereafter to July 1st, 1947, in denominations of \$1000 each, bearing interest at the rate of 5% per annum, payable semi-annually, principal and interest payable at the Chemical National Bank in the City of New York.

Each bidder must deposit a certified check for 2% of the amount of his bid, payable to the order of Geo. W. Sirrine, Chairman, as a guarantee that the purchaser will take up and pay for the bonds within ten days after they are ready for delivery; the required deposit to be forfeited on failure to comply. The Board reserves the right to reject any and all bids.

There will be furnished the opinion of Storey, Thorndike, Palmer and Dodge of Boston, as to the legality of said bonds.

GEO. W. SIRRINE,

Chairman of Board of Trustees.

R. F. WATSON,

Secretary of Board of Trustees.

May 24, 1923.

Bids close June 23, 1923.

\$33,000, 6% Drainage Bonds

Anderson, S. C.
The Drainage Commissioners of Generos-tee Creek Drainage District, situate in Anderson County, South Carolina, will receive bids for the purchase of \$33,000.00 of Bonds of Generos-tee Creek Drainage District. These Bonds were issued January 1, 1920, and mature at the end of twenty years. They bear interest at 6% payable semi-annually, January 1st and July 1st, and are of the denomination of \$500.00 each. By the statute law of South Carolina, such bonds are made a lien on the lands in the district next in priority to State and County taxes. Sealed bids will be opened at the offices of Bonham and Allen, Attorneys, at Anderson, S. C., at 11 o'clock the 23rd day of June, 1923. The right is reserved to reject any and all bids.

J. S. FOWLER,

D. W. CHAMBLEE,

R. C. MCKINNIE,

Commissioners Generos-tee Creek Drainage District.

May 17, 1923.

Bids close June 11, 1923.

\$255,000 5% Bonds

Dobson, N. C.
On the 11th day of June, 1923, at 12 o'clock M., at the courthouse in Dobson, Surry County, North Carolina, the following county bonds will be offered for sale, to-wit: \$150,000 of Surry County Good Roads Bonds of the denomination not to exceed \$10,000, dated June 1st, 1923, maturing 1st of June, 1953, bearing five per cent (5%) interest payable semi-annually on the 1st days of June and December of each year. Bonds to be sold at public auction. Sealed bids will be received by Miss Lillian Harkrader, Register of Deeds, Dobson, up to 12 o'clock M., on the 11th of June. Certified check of \$2500 required to accompany each bid.

Also, at the same time and place, \$105,000 of Surry County Bonds issued for necessary expenses will be offered for sale at public auction. These bonds to bear date 1st of June, 1923, maturing 1st of June, 1943, bearing interest at five per cent (5%), payable semi-annually on the 1st days of June and December. Sealed bids will be received by Miss Lillian Harkrader, Register of Deeds, Dobson, up to 12 o'clock M. on the 11th day of June, 1923. Certified check of \$2500 required to accompany each bid.

The Commissioners reserve the right to reject any and all bids in both issues.
This 7th day of May, 1923.

W. J. RYERLY,
Chairman Board of County Commissioners.

Bids close June 18, 1923.

Bridge

Rocky Mount, Va.
Sealed bids will be received by the Board of Supervisors of Franklin County at Rocky Mount, Va., on the 18th day of June, 1923, for the construction of a bridge across Snow Creek about 14 miles from the Town of Rocky Mount. Blue prints on file with the Clerk of Court at Rocky Mount, Va.
The Board reserves the right to reject any and all bids.

BOARD OF SUPERVISORS
FRANKLIN COUNTY
By T. W. CAIPEN, Clerk.

Bids close June 12, 1923.

Concrete Roads

STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Baltimore, Md.
SEALED PROPOSALS for building five sections of State Highway, as follows:
Frederick Co., Cont. F-64—One section of State Highway from Graceham toward Rocky Ridge, for a distance of 1.0 miles. (Concrete.)
Montgomery Co., Cont. No. 125-A—One section of State Highway along the Blair Road from the Brookville Pike 1 mile easterly. (Concrete Shoulders.)
Cecil Co., Cont. Ce-45—One section of State Highway from Singler toward Fair Hill for a distance of 2.0 miles. (Concrete.)
Dorchester Co., Cont. D-30—One section of State Highway between Eldorado and Pinchville, for a distance of 1.0 miles. (Concrete.)
Allegheny Co., Cont. A-3A—One section of State Highway along the Bedford Road from the Cumberland City limits to the Cross Road and along the National Pike from the Pennsylvania R. R. Bridge to Narrows Park, a distance of 1.5 miles. (Concrete Shoulders.)

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 12th day of June, 1923, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500.00) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 21st day of May, 1923.

JOHN N. MACKALL,
Chairman
L. H. STEUART,
Secretary.

Bids close June 19, 1923.

Macadam, Concrete and Gravel Roads

STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building five sections of State Highway, as follows:
Frederick Co. Cont. F-60. One section of State highway from Myersville toward Ellerton, for a distance of 1.0 mile. (Macadam Resurfacing).
Carroll Co. Cont. Cl. 40. One section of State highway from Gamber toward Pinksburg for a distance of 1.0 mile. (Concrete).

Anne Arundel Co. Cont. AA-34. One section of State highway along the Mayo Road for a distance of 2.0 miles. (Gravel).
Charles Co. Cont. Ch-27. One section of State Highway between Marbury and Doncaster for a distance of 2.0 miles. (Gravel).

Queen Annes Co. Cont. Q-26. One section of State Highway from Millington toward Sudlersville for a distance of 2.0 miles. (Concrete).

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 19th day of June, 1923, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 28th day of May, 1923.

JOHN H. MACKALL,
Chairman.
L. H. STEUART,
Secretary.

Bids close July 2, 1923.

Road Improvement

Fayetteville, West Virginia.

May 15th, 1923.

Sealed proposals will be received at the Office of the Clerk of the County Court of Fayette County, West Virginia, at Fayetteville, West Virginia, until 2 o'clock, P. M., Monday, July 2nd, 1923, for the grading, draining and paving of the following roads in Fayetteville District of Fayette County, West Virginia.

1st: Mt. Hope to Pax to the Raleigh County Line, approximately 10 miles.

2nd: Oak Hill to Country Club by way of Summerlee, approximately 4 miles.

3rd: Fayetteville to Gatewood to Cunnard, approximately 10 miles, and for grading and draining.

4th: Country Club at Lochgelly to Wriston.

Bids will be received on the following types of construction:

9 ft. Concrete local stone shoulders (Local and limestone).

9 ft. Local stone base with limestone top and chips—local stone shoulders.

9 ft. Local stone base and top and chips—local stone shoulders.

9 ft. Local stone base and top with limestone chips—local stone shoulders.

9 ft. Local stone base 2-inch limestone binder—1½-inch rock asphalt—local stone shoulders.

Bids must be made on the approved forms contained in the Book of Specifications provided by the State Road Commission of West Virginia.

Information can be obtained upon application to H. R. Anderson, Road Engineer, Fayetteville, West Virginia.

A certified check for five (5%) per cent of the proposal made payable to the order of the Sheriff of Fayette County must be filed with the bids.

The County Court reserves the right to reject any and all bids.

H. R. ANDERSON,
Road Engineer.

By Order of:
The County Court of Fayette County,
West Virginia.

ELI J. TAYLOR, President.
B. F. CLAYPOOL, Commissioner.
S. J. JASPER, Commissioner.

Attest:
THOS. BOONE, Clerk.

Bids close June 30, 1923.

Street Paving

Selma, Ala.

Sealed bids will be received by the undersigned until noon, Saturday, June 30, 1923, for the paving of Church Street in Selma, Alabama, with asphalt, asphaltic concrete, concrete and brick. Project consists of about 13,500 square yards. Plans and specifications may be secured from the undersigned.

W. O. CRISMAN,
City Engineer.

Bids close June 12, 1923.

Street Paving, Sewer and Water Mains

Norwood, N. C.

Sealed bids will be received by the Town Council of Norwood, N. C., at 2 P. M., June 12th, 1923, for the construction of 11,000 square yards of pavement, 10,000 square yards of sidewalk, 11,000 lineal feet of combined curb and gutter, and 14,000 cubic yards of excavation.

At the same time, separate bids will also be received for the installation of 3250 lineal feet of water mains with the necessary valves, hydrants, etc., and for 3250 lineal feet of sanitary sewer mains with the necessary manholes, etc.

Cashier's check for One Thousand Dollars shall accompany all proposals on street improvements and a Cashier's check for Five Hundred Dollars shall accompany all proposals for sewer and water improvements.

Specifications can be obtained from the office of the Mayor or from the Engineer.

S. J. LENTZ, Mayor.
HARWOOD BEEBE, Engineer,
Spartanburg, S. C.

Bids close June 25, 1923.

Paving and Sewers

Thomasville, Ga.

Sealed proposals will be received by the Mayor and the Council of the City of Thomasville, at the City Hall, Thomasville, Georgia, until 8 o'clock P. M. (Eastern time) June 25th, 1923 for furnishing materials and construction of approximately:

Contract "A":—
17,304 lin. feet Concrete curb and gutter.

1,364 lin. feet granite curb.

10,919 sq. yds. sidewalk paving.

1,395 lin. feet 18-inch storm sewer.

380 lin. feet 24-inch storm sewer.

28 catch basins complete.

Contract "B":—
13,891 sq. yds. street paving.

3,003 cu. yds. excavation.

In the event that only Contract "A" is

let, the low bidder on contract "A" only will be considered. In the event that both contract "A" and contract "B" are let the low bidder on the combined contracts will be considered.

Plans and specifications are on file at the office of the City Clerk of Thomasville, and copies may be obtained from the Engineer on the payment of \$5.00 to cover cost of printing, etc.

Proposals shall be submitted on regular forms which accompany specifications, and must be accompanied by a certified check payable to the City of Thomasville, or a money deposit, for five per cent of the amount of the proposal.

The right is reserved to reject any and all bids.

H. J. MCINTYRE, Mayor.
F. M. SMITH, JR., City Clerk.
C. Q. WRIGHT, Engineer
Albany, Ga.

Bids close June 26, 1923.

Pumping Plant and Building

CARROLL COUNTY DRAINAGE AND
LEVEE DISTRICT No. 1
CARROLL COUNTY, ILLINOIS

Savanna, Ill.

Sealed bids will be received until ten o'clock A. M., June 26, 1923, by the Carroll County Drainage and Levee District No. 1 at the office of the Secretary, H. P. Grelson, Savanna, Illinois, for an oil engine driven pumping plant containing a 30-inch double suction centrifugal pump. Bids will also be received for a building to house this plant.

For further information address the Engineers, Elliott & Harman Engineering Co., Peoria, Illinois.

Bids close June 18, 1923.

Dock and Boat Basin

Sanford, Fla.

Sealed proposals will be received by the City Commission of Sanford, Florida, at their office in the City Hall at or before 3 P. M., June 18, 1923, for the construction of a Dock and Boat Basin, containing the following approximate quantities:

- 24,000 Cubic Yards Hydraulic Sand Fill.
- 15,300 Lin. Ft. Foundation Piling.
- 1930 Lin. Ft. Creosoted Fender Piling.
- 20,000 Lin. Ft. Palmetto Piling.
- 76,000 Pound Reinforcing Bars.
- 1750 Cubic Yards Concrete.
- 139 Cubic Yards Pre-Cast Concrete Anchors.
- 11,000 Ft. B. M. Creosoted Lumber.
- 625 Lin. Ft. 54" Sewer.
- 1 Brick Manhole.
- 4 Mooring Bitts.
- 2200 Pounds Cast Iron Pins.
- 500 Ft. B. M. Cypress Lumber.
- 2900 Pounds 3/4" Bolts.
- 1460 Pounds Cast Iron Washers.

Proposals to be presented in a sealed envelope, endorsed on the outside "Bid for Dock & Boat Basin," Sanford, Florida, and the name of the bidder or bidders.

Each proposal must be accompanied by a

certified check, made payable at sight, to the order of the City of Sanford, Florida, for 3 per cent of the amount of their bid.

The successful bidder or bidders will be required to give a bond equal to 50 per cent of his or their bid, and such bond to be executed by a surety company licensed to do business in the State of Florida. Said bond to be approved by the City Commission.

Copies of the plans and specifications may be seen at the office of the City Manager, or at the office of Fred T. Williams, Engineer. Plans and Specifications may be obtained at either office on deposit of \$10.00 which will be returned if a bid is made.

The City Commissioners reserve the right to reject any or all bids, or to accept any bid they deem to be for the best interest of the City.

W. B. WILLIAMS,
City Manager.

Bids close June 14, 1923.

Pier and Wharf

Charleston, S. C.

Sealed proposals will be received by the Port Utilities Commission of Charleston, S. C., at its office, Room 712 Peoples Building until noon, June 14, 1923, and then pub-

licly opened, for constructing with creosoted piles a pier at Market Street and a wharf at Columbus Street, Charleston, S. C.

Specifications and proposal forms will be furnished to prospective bidders on deposit of \$5.00, which will be refunded to depositors who submit proposal or return sets in good condition. Further information on application.

H. M. GALLAGHER,
General Manager.

Bids close June 25, 1923.

Automobile Tags, Etc.

Bids are requested for furnishing to the State of Florida for the year 1924 approximately 175,000 Automobile License Tags and approximately 210,000 Aluminum Embossed Weight Inserts, approximately 175,000 License Tag Envelopes and 3000 Chauffeur Badges.

Specifications will be furnished on request to all parties who are in position to enter into a contract for this work. Bids will be closed at 10.00 A. M., June 25, 1923.

Address ERNEST AMOS, Comptroller, Tallahassee, Fla.



CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWERS, MISCELLANEOUS PROPERTIES

FOR SALE—Large Kaolin, mica and talc mines in North Carolina. Also timber lands. James H. McCoy, Box 2056, Glen Rock Station, Asheville, N. C.

TIMBER AND TIMBER LAND

FOR SALE—20,000.00 feet Cypress timber on river in Florida, can be floated down river to railroad and mill site. Timber practically clean of defect and will average about 800 feet to tree. Write for price and terms. S. F. King, 30th St. and Notter Ave., Jacksonville, Fla.

VIRGINIA—Fifteen million feet mixed hardwood and Pine timber. Western Portion of Virginia, near main line railway. Excellent facilities for lumbering. Price considerably under market. Address P. O. Box 1775, Richmond, Va.

FARM AND TIMBER LAND

FLORIDA—Timber, Colonization and Fruitland tracts any size; best in Florida. MAURER & COMPANY, Orlando, Fla.

FARM AND TIMBER LANDS—Alfalfa Lands, Cotton Farms. We control one-half million acres in South East Missouri and North East Arkansas. Subdivisions for sale across the Mississippi River in Arkansas. Address Mo-Ark-Land Co., P. O. Box 1211, Memphis, Tenn.

FARM, FRUIT, AND TRUCK LANDS**FLORIDA**

FLORIDA—National statistics show that FLORIDA is developing faster than any other State in the Union. It is indeed a land of great resources and opportunities—the playground of the Rich; the Paradise of the Poor. Babson, the great business statistician, says that Tampa is destined to be the greatest city in the Southeast. Come and be one of us. Send for Booklet, Largest Orange Tree in the world, and list of Homes, groves and farms. Tampa-West Coast Realty Co., (Inc.) Opposite Post Office. "Since before the War." Tampa, Fla.

SOUTH CAROLINA

SECLUSIVE BUILDING SITES perfectly drained on deep water. Large acreage in magnolias, live oaks, palmettoes, and Southern pines. Situated on three-mile expanse of water. Excellent health. Pure artesian water. Winter temperature 57.2 degrees. Roses and other flowers bloom in mid-winter. Five miles to railroad station. Excellent neighborhood. Ideal for winter homes. Fishing and hunting. If interested, write

LAKE REALTY COMPANY,
Beaufort, S. C.

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

SAND AND GRAVEL DEPOSIT

FOR SALE—Sand and Gravel deposit fifty-eight miles from Houston, Tex., fastest growing City South. Right on Southern Pacific Railway. Address 626 First National Bank, Houston, Texas.

BUSINESS OPPORTUNITIES

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW,
Harlow Building, Alexandria, Va. Colorado Building, Washington, D. C.

FIREPROOF and insulating building products can be made from sawdust and waste wood, waste paper, cinders, etc. by my process. Product time tested and results can be guaranteed, it is cheap and the equipment is cheap and simple, suitable for brick, blocks, partition tile, roof decking, stucco backing and cold storage insulation. For samples and particulars address E. R. Stowell, Portland, Indiana.

FOR SALE theatre business building in heart of business district of Eustis, Florida, commodious well ventilated and equipped auditorium and stage. Two stores fronting main street and arcade. Seven office suites. Annual rental income \$7980. Matlocks & Wheeler, Inc., Eustis, Florida.

PARTY with an established furniture retail business desires to relocate and enlarge same would invite a partner with capital and practical business knowledge, must be a gentle. Business has no liabilities. Address No. 6176 care Manufacturers Record, Baltimore, Md.

WANTED COMPANY to develop Fullers Earth Mine, Agricultural Lime or Portland Cement Factory. Great opportunity, 200 acres lime and Fullers Earth deposits, 20 feet to 150 feet deep. J. W. Uhels, Elko, Ga.

COLLECTIONS

"Send your past due accounts to us for collection. Commission basis. Correspondents everywhere. Herbert Co., Rand-McNally Building, Chicago, Ill.

FINANCIAL**SOUTHERN MILL STOCKS BANK STOCKS BONDS.**

25 years' experience in this field.
F. C. ABBOTT & CO.,
Charlotte, N. C.

VALUABLE TEXT-BOOKS on the "Money Question"—The most vital question affecting the welfare of the people. The Monetary Educational Bureau, Kellogg Bldg., Washington, D. C.

"DON'T INCORPORATE: Organize or reorganize any enterprise under common law; any capital; transact business any state; no corporation taxes or reports; no personal liability. Booklet free. Herbert Co., 2 Rand McNally Building, Chicago, Ill."

INDUSTRIES WANTED

"INMAN, S. C., wants industries, large and small. Offer cheap power—healthful climate—good labor conditions. Address Inman Chamber of Commerce, Inman, S. C.

WEST MEMPHIS, ARKANSAS: Wants Industries, cheap labor and low taxes. Write for information.

P. O. Box 1211, Memphis, Tenn.

WEST MEMPHIS, ARKANSAS: Wants Handle Mills, Feed Mills or any kind of Industries, fine trackage in sight of Memphis, Tenn. Special inducements to offer. Mo-Ark-Land Co., P. O. Box 1211, Memphis, Tenn.

WANTED—A Brick and Tile factory, located on trunkline Missouri Pacific Railway, near town of 20,000 inhabitants. 150 acres of land, consisting of excellent brick and tile dirt, which may be manufactured with natural gas, as fuel, from field in which land is located. Address J. H. Watkins, Box 253, Monroe, Louisiana.

INDUSTRIAL PLANTS

FACTORY for sale or lease. All or part of 100,000 sq. ft. floor space. Sprinkler System. Steam Heat. Railroad Siding. Central location. Wire King Thompson, 52 West Gay St., Columbus, Ohio.

INDUSTRIAL PLANTS

50 ACRE FACTORY SITE: BUILDINGS · EQUIPMENT, ETC., FOR SALE by Trustee in Bankruptcy.

On Tuesday July 3rd, 1923, I will sell at public auction at the Court House door of Bexar Co., San Antonio, Texas, in lots, parcels, or in bulk the entire plant of the STROUD MOTOR MFG. CO., appraised at over \$350,000.00 and consisting of fifty acres of land; Foundry; Heat treating; Main Building: all fully equipped with water; light; power lines—machinery (all modern and in first class condition); railroad spur, loading switch and platform; offices; merchandise and fixtures, located about six miles from center of City of San Antonio, Texas. Open for inspection at all hours. Synopsis of Inventory and general information upon application to M. COP-PARD, Trustee, Alamo Natl. Bank Bldg., San Antonio, Texas.

FACTORY SITES

For Sale
MANUFACTURING SITE
on Railroad and Water
Hastings Bros., Norfolk, Va.

FOR SALE—Desirable factory site located at Paragould, Arkansas; improvements consist of one story brick factory 255x40 with additions for boiler and engine room and warehouse. Two open frame sheds 100 x100. Good power plant and lighting equipment. Railroad sidings, Cotton Belt and Iron Mt. Railroads. All in first-class repair. Particularly adapted for wood working plant or furniture factory. Address No. 6137 care Manufacturers Record, Baltimore, Md.

WE HAVE FINE FACTORY SITES for any size plant, across the river from Memphis, Tenn., at West Memphis, Arkansas, a net work of railroads and trackage, low taxes. Write for information, Mo-Ark-Land Co., P. O. Box 1211, Memphis, Tenn.

FREE FACTORY SITE—Cheap gas, cheap coal, direct transportation facilities, cheap labor. Information on request. Wetumka Chamber of Commerce, Wetumka, Okla.

RICHMOND, VA. BEST LOCATIONS

For Industrial and Factory Sites,
Sizes Convenient
and on Railroad Sidings
Prices Very Reasonable.
Labor Conditions Excellent.

Write
INDUSTRIAL REALTY CORP.
Care Richmond Trust Co., Richmond, Va.

PATENT ATTORNEYS

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chand-lee & Chandlee, 412 7th St. N.W. Washing-ton, D. C.

PATENTS—Booklet free. Highest refer-ences. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

PATENTS, TRADE-MARKS AND COPY-RIGHTS—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEP-TION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service. Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

PATENTS AND PATENT CAUSES—Searches; Applications; Reports on ques-tions of Validity and Infringement. De-velopment, design, manufacture and con-tracts. Registered Patent Attorney; Mem-ber American Society of Mechanical En-gineers. ARTHUR SCRIVENOR, Mutual Building, Richmond, Va.

AGENCIES WANTED

MANUFACTURERS AGENTS—Desire to make connections with manufacturers of reputable Building Materials and Specialties on exclusive commission basis for Memphis and vicinity. Answer sending catalog and full particulars outlining your proposition. METALLIC SALES COMPANY, P. O. Box 2287, Desoto Station, Memphis, Tenn.

Chicago established sales organization de-sires additional product to market. Ex-perienced wood, metal, conveying equip-ment, selling R. R. Mines, Construction and Manufacturing plants, Room 69, 39 W. Adams St., Chicago, Illinois.

SITUATIONS WANTED

A YOUNG MAN, 21 years old, who has had experience as an operator of Road Roller machine, wants a position with a reliable Road Building Contractor.
Edward Taylor,
Care T. J. Purdy, Griffin, Ga.

ACCOUNTANT — Experienced, capable, sober, 39, fluent English-Spanish, highest references, desires connection with Corpo-ration in Latin America, any line. Address No. 6177, care Manufacturers Record,

SITUATIONS WANTED

CHEMICAL ENGINEERING, by under-graduate University of Michigan, during summer, July 1st to October 1st. Had gen-eral qualitative and analytical chemistry, and chases in coal tar and gas analysis, besides the regular engineering courses. Could act as assistant in any kind of lab-oratory. Three years in college. Twenty-one years old. Address J. M. RUSS, JR., Red Lick, Mississippi.

MEN WANTED

Salaried positions \$2500 to \$25,000 up-ward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified, and receptive to tentative offers for a new connection you are invited to communicate in strict confidence with the undersigned, who will conduct pre-liminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, with-out jeopardizing present connections, and in a manner conforming strictly to pro-fessional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lock-wood Building, Buffalo, N. Y.

FERTILIZER SUPERINTENDENT WANTED by old Established Company. One thoroughly experienced in the manu-facture of Sulphuric Acid, Acid Phosphate and complete fertilizers and capable of main-taining an efficient organization. Southern location. Address No. 6174 care Manufac-turers Record, Baltimore, Md.

EXPERT COFFERDAM FOREMAN WANTED.—Must have several years expe-rience in handling sheet steel piling and building cofferdams. Reference must accom-pany application, also salary expected.
P. H. W., Box 357, Bainbridge, Georgia.

WANTED—A first-class general building draftsman, one who is familiar with general building details, particularly high class mill work; necessary to have some general archi-tectural drafting knowledge, and be able to take off quantities accurately. Good job open in State of North Carolina. Address No. 6175, care of Manufacturers Record.

MACHINERY AND SUPPLIES

BARGAIN FOR PROMPT SALE
Equipment of Chesapeake Engine Co.; machinery, tools, patents and drawings for Marine and Stationary motors, 2 and 4-cycle. Chesapeake Engine Co., Oxford, Md.

SPECIAL ADVERTISEMENTS Of GENERAL INTEREST

SOUVENIR ART CALENDARS

WANTED—1000 Merchants and Bankers—Help counteract the irreligious trend of today by presenting your friends with our semi-religious, non-sectarian Souvenir Art Calendars, for the Holidays.

A space on each page for your Business Card, printed at our expense.

You receive more value in this beautiful souvenir for the money, than any gift on the market.

Pages 9½ by 16½ inches, metal bound and cord hung. A valuable sacred picture for each month, and a Scripture verse for every day.

The South is the most religiously inclined section of our country, and this wonderful calendar distributed to your customers will strengthen this much needed sentiment.

Prices reasonable; good commission to responsible agents as a side line or exclusive.

I. H. PUBLISHING HOUSE

3200 Franklin Boulevard

CHICAGO

1000 Acres of Coal and Timber For Sale in Fee

Fronts on main line of N. & W. Railway and Tug River. This property has never been on the market before. Principals only.

J. G. BUSTON, TAZEWELL, VA.

MR. MANUFACTURER!

If you are contemplating moving to, or desirous of secur-ing information concerning conditions in Houston, we will be pleased to receive your inquiries.

SOUTH TEXAS COMMERCIAL NATIONAL BANK

"Houston's Bank of Service"

P. O. Box 1725

HOUSTON, TEXAS

For Sale—A City!

A Complete Industrial City

It
Includes
**117
Acres of Land**
**Complete
Power House**
**68
Dwellings**
**2 Miles of
Railroad**
Locomotive, Cars, etc.
Track Scales
Near rich
iron ore beds
and coal fields
Only 18 Miles from
Staunton, Va.

LOCATION

Here at Augusta Springs, Virginia, is a *complete industrial city* for sale. On the main line of the C & O, it nestles in the foothills of the historic "Blue Ridge Mountains of Virginia"—only 18 miles from Staunton—in the heart of rich iron ore deposits and near coal fields.

EQUIPMENT

Among its many industrial buildings are:

- | | |
|---|-----------------------------|
| (a) A modern, complete brickbuilt <i>Power Plant</i> comprising 5 Boilers of 150 h.p., one 100 kw. D.C. Engine Generator and one 220 kw. D.C. Engine Generator. | (b) Mill Buildings |
| | (c) Machine Shops |
| | (d) Carpenter Shops |
| | (e) Brick Storage Buildings |

LABOR

Many of the dwellings are now occupied; and there is plenty of good white labor in the vicinity looking for work at reasonable wages. The land is fertile. There is plenty of good water. There is lots of room for expansion. The present plant layout is most efficient.

ADAPTATION

Many and varied industries might profitably locate in Augusta Springs. Tanneries, fertilizer plants, for instance—there are substantial plants in both these industries located nearby.

Briefly, Augusta Springs, Va., has *everything* that makes it a fine investment as a **COMPLETE BUY** for some astute manufacturer. It has location—equipment—plant—railroad and rolling stock—labor—transportation facilities—elbowroom—and valuable natural resources.

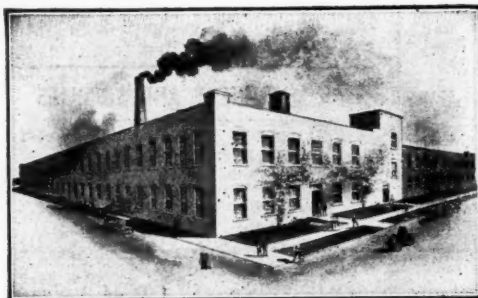
Investigate Now!

Don't wait until the best elements (The Power Plant, for example) are snapped up.

Write or Wire to

JULIUS B. BAER Atty.
2 Rector St., New York City

or **T. E. BROWN**
Augusta Springs, Va.

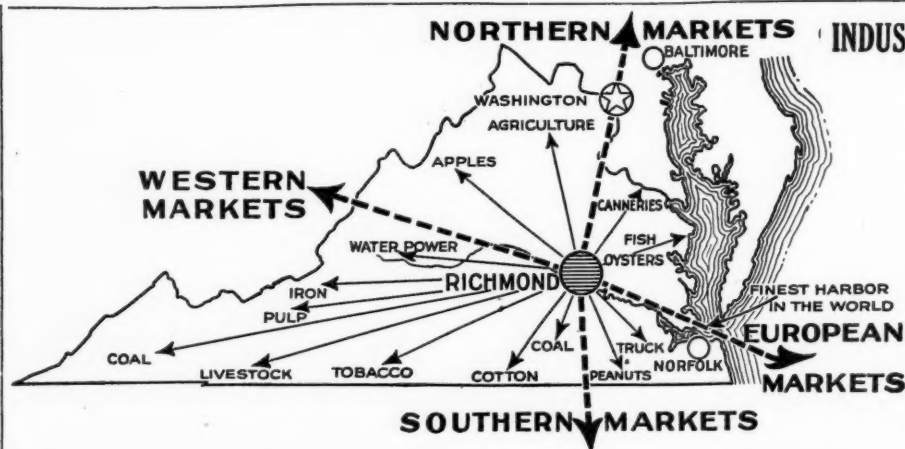


A RARE OPPORTUNITY is offered to some manufacturing concern desiring to expand its operations, to acquire an established business of more than sixty years standing and having an organization thoroughly familiar with all its details, occupying a two-story brick factory building having approximately 30,000 square feet of manufacturing space.

Located at Buffalo, N. Y., on a lot comprising approximately 50,000 square feet, affording liberal space for additional buildings, and having a Railroad Siding adjoining the premises.

Particularly well adapted to be operated in conjunction with the manufacture of electrical devices, sheet metal articles, etc.

Address **BUFFALO, P. O. Box 793, Dayton, Ohio.**



INDUSTRIAL SITES—RICHMOND, VA.

Railroad Sidings, Prices Low, Labor Conditions good. Richmond Industries can obtain electric power as cheap as .0125 per K.W.H. plus discount of 20%. Richmond has a gas rate of \$1.30. Richmond has six trunk line Railways radiating in eleven directions. Write

RICHMOND TRUST COMPANY

A Distributing Point

COLUMBIA, S. C.

HAS



- 4 routes to Charleston, S. C. (seaport)
- 2 routes to Wilmington, N.C. (seaport)
- 4 routes to Augusta, Ga.
- 6 routes to Atlanta, Ga.
- 3 routes to Cincinnati and west
- 3 routes to Richmond, Va.
- 2 routes to Washington, D. C. and north
- 4 routes to Savannah, Ga. (seaport)
- 2 routes to Norfolk, Va. (seaport)
- 2 routes to Brunswick, Ga. (seaport)
- 2 routes to Jacksonville, Fla. (seaport)

No train over one route passes over any part of other routes to same destination.



Further information by

COLUMBIA

Chamber of Commerce

SOUTHWESTERN DISTRIBUTION

A young man possessing exceptional selling and executive experience, wants to represent in Kansas City territory, several manufacturers of mechanical articles, machinery, or equipment.

He has an eight year record of proven sales ability in both personal solicitation and sales direction in Kansas City territory.

He has had nearly two years experience as a bank officer with executive responsibility.

He is financially responsible.

He is well known by leaders in business and civic life through having taken an active part in civic organizations.

A mutual investigation will be expected as to moral and financial standing.

Address William E. Smith
510 Commerce Bldg. Kansas City, Mo.

GOOD OPPORTUNITY

For young man with mechanical knowledge

WELL-ESTABLISHED

MANUFACTURING BUSINESS FOR SALE

Operated successfully for many years manufacturing gears, special machinery, etc.

Owner retiring. Business in flourishing condition with orders and contracts sufficient to keep plant operating full for year or more. Value of assets about \$500,000. Reasonable terms can be arranged. Address

A-296 care of Manufacturers Record, Baltimore, Md.

THOS. E. GRADY & CO., Inc.

INDUSTRIAL TRAFFIC MANAGERS
AND COUNSELLORS

Representing capital in excess of \$200,000,000.00.

Our clientele composed of more than 3000 shippers and receivers of freight in the South—

We are the largest Traffic Organization in the South—Our facilities are such as to render you the best service at all times.

We handle all traffic and transportation matters on contract basis—Correspondence Solicited.

ATLANTA, GA. SAVANNAH, GA. COLUMBIA, S. C.
Citizens & Southern Savannah Bank & Liberty National
Bank Building Trust Co. Bank Building

WEST PALM BEACH, FLA., American National Bank Bldg.

OPPORTUNITIES

Industrial and Agricultural

The A. & W. P.—W. Ry. of Alabama and Georgia Railroads traverse a territory rich in material and potential resources. Attractive industrial sites. For information apply:

**Commercial & Agricultural
Dev. Dept.—Above Lines
Atlanta, Georgia**



A detachment of new



WAR DEPARTMENT

Dates subject

JUNE

11—LAND, BUILDINGS, etc., Seven Pines, Va., Auction. For proposals write Danford, Bliss Co., Official Auctioneers, 616 Washington St., Buffalo, N. Y.

13—BUILDINGS, etc., Penniman, Va., Auction. For catalogs write Danford, Bliss Co., Official Auctioneers, 616 Washington St., Buffalo, N. Y.

18—BUILDINGS & IMPROVEMENTS Camp Grant, Ill., Auction. For proposals write C. O., Camp Grant, Ill.

SELLING PROGRAM

to change

JUNE

22—AIR SERVICE SUPPLIES, Middletown, Pa., Auction. For catalogs write C. O., Air Reserve Depot, Middletown, Pa.

28—Q. M. SUPPLIES, Brooklyn, N. Y., Auction. For catalogs write Q. M. S. O., N. Y. General Intermediate Depot, 59th St. & 1st Ave., Brooklyn, N. Y.

The Government reserves the right to reject any or all bids.

Write for any of these catalogs which interest you

U.S.

WAR DEPT



Gas Welded Pipe Joints

The use of gas welded joints in pipe lines has been adopted by many of the largest oil and natural gas companies.

Hundreds of miles of welded pipe lines are used daily with complete satisfaction.

Linde Service Engineers working with Linde users have played an important part in establishing standard practices for welding joints on all kinds of piping. The result of this practical experience in the development of gas welded

pipe joints is placed within convenient reach of every Linde user through Linde Service.

Because of the unusual interest over the entire country for information about gas welded pipe joints the Linde Company has prepared a booklet which should be of interest to every large user of piping.

A copy of "How Welded Joints Solved Pipe Line Troubles," may be secured upon request from our nearest District Sales Office.

Linde Service is the logical development of Linde's Desire to give its patrons every facility and service in the use of Linde Products

For your convenience—31 plants—58 warehouses

THE LINDE AIR PRODUCTS COMPANY

Carbide and Carbon Building, 30 East 42d St., New York City

The Largest Producer of Oxygen in the World

District Sales Offices:

Atlanta
Baltimore
Boston
Buffalo

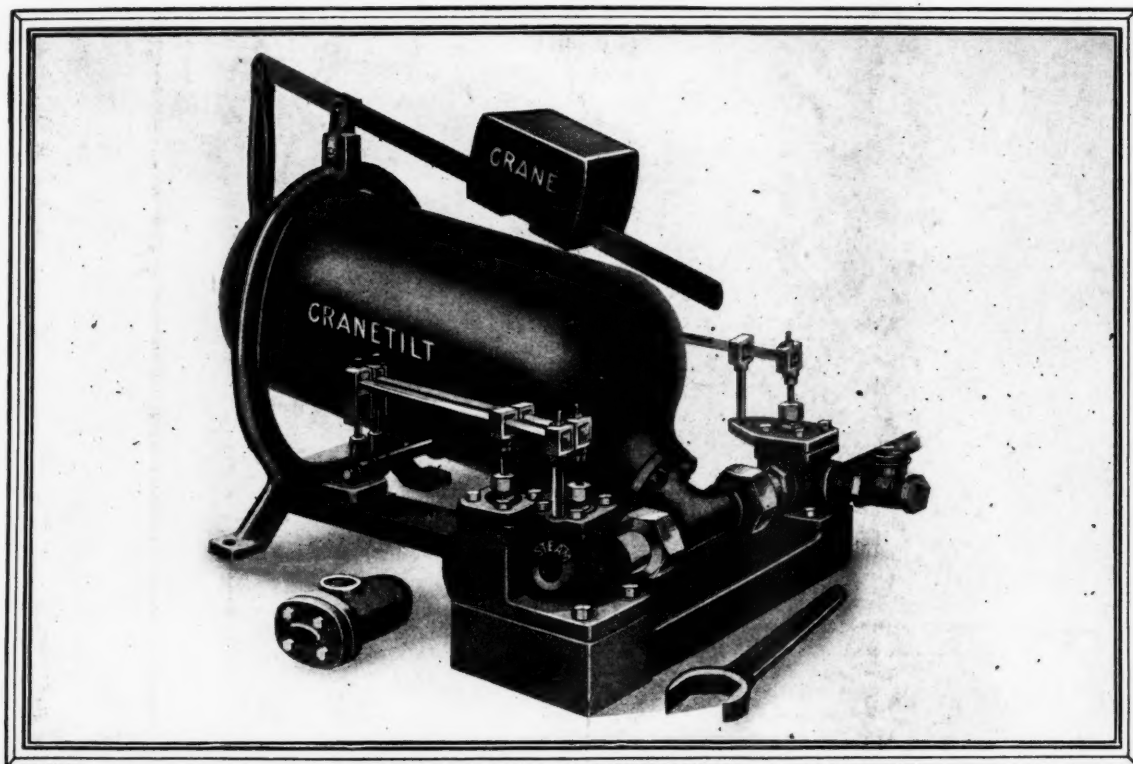
Chicago
Cleveland
Dallas

Detroit
Kansas City
Los Angeles
Milwaukee

New Orleans
New York
Philadelphia

Pittsburgh
San Francisco
Seattle
St. Louis

LINDE OXYGEN



CRANETILT THREE-VALVE LIFTING TRAP

WHY DO YOU PAY FOR USELESS PIPING ?

Discharge capacity is the most important test in buying steam traps. Sizes of piping connections are often misleading. Many traps have valves so small they handle only a fraction of the water which could pass through their connected piping. Cranetilt steam traps are rated according to the amount of condensation they can handle. Compared on this sensible basis, they cost no more than any other steam trap. Visible operation adds to their value for any installation.

CRANE

GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVE., CHICAGO

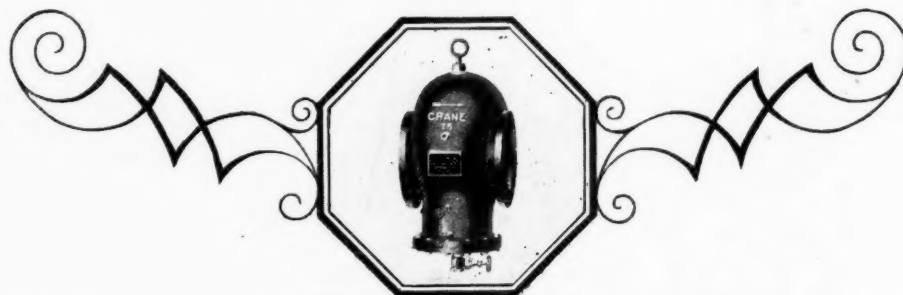
Branches and Sales Offices in One Hundred and Thirty-five Cities

National Exhibit Rooms: Chicago, New York, Atlantic City

Works: Chicago, Bridgeport, Birmingham, Chattanooga and Trenton

CRANE, LIMITED, MONTREAL. CRANE-BENNETT, LTD., LONDON

CRANE EXPORT CORPORATION: NEW YORK, SAN FRANCISCO
C^{IE} CRANE, PARIS



Crane Horizontal Oil Separator. No 03

